THE BUILDER
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VOL. CXLII. JUNE 3, 1932. No. 4661.

Wharfdale Road, Sub-station, Islington.

MR. E. C. P. MONSON, F.R.I.B.A., Architect.

MEETINGS

FRIDAY, *June* 3.

Hampshire and Isle of Wight Architectural Association. Visit to the Binfield Brick and Tile Works.

Royal Institution. Professor J. C. M'Lennan on "Electrical Conductivity of Metals at the Lowest Temperatures." At 21, Albemarle-street, W.1. 9 p.m.

TUESDAY-FRIDAY, *June* 7-10.

Institution of Gas Engineers. Annual General Meeting. At the Park-lane Hotel, Piccadilly, W.1.

FRIDAY, *June* 10.

Hampshire and Isle of Wight Architectural Association. General Meeting. At Winchester. 6.15 p.m.

National Housing and Town Planning Council. Annual Conference. At Bath.

SATURDAY, *June* 11.

St. Paul's Ecclesiological Society. Visit to the Parish Church, Bromley, and Bromley College. Bromley Station, 2.25 p.m.

TUESDAY-THURSDAY, *June* 14-23.

London School of Hygiene and Tropical Medicine. Lectures in Tropical Hygiene by Lt.-Col. G. E. F. Stammers. At Keppel-street, W.C.1. 5 p.m.

WEDNESDAY-SATURDAY, *June* 15-18.

Royal Institute of British Architects. Architects' Conference at Manchester. Wednesday: Informal Reception at the Masonic Temple, Bridge-street, 8 p.m. to 11 p.m. Thursday: Welcome at Town Hall by the Rt. Hon. the Lord Mayor of Manchester, 10.30 a.m.; Inaugural Address by the President, followed by a symposium on Art and the People by Mr. H. S. Goodhart-Rendel, F.R.I.B.A., Mr. Eric Gill, and others; Lunch at the Midland Hotel, 12.45 p.m.; Conference photo at the new Reference Library, 2 p.m.; Motor Coach drives round Manchester, 2.45 p.m.; Tea at the Manchester University, 4.45 p.m.; Reception by the Rt. Hon. the Lord Mayor and Lady Mayoress of Manchester at the City Art Gallery, 8.30 p.m. Friday: Tours through Lancashire; Conference Banquet at the Midland Hotel, 7.30 p.m. Saturday: Visits to the Lake District and North Wales.

Institution of Municipal and County Engineers. Annual Conference. At Glasgow.

WEDNESDAY-SATURDAY, *June* 15-25.

Royal Institute of British Architects. Exhibition of Architects' Working Drawings. 10 a.m. to 8 p.m. (Saturdays 5 p.m.).

MONDAY-WEDNESDAY, *June* 20-22.

Institution of Heating and Ventilating Engineers. Summer Meeting. At the Grand Hotel, Folkestone.

WEDNESDAY, *June* 22.

London Society. Annual River Trip to King George V Dock. Leave Westminster Pier, 2 p.m.

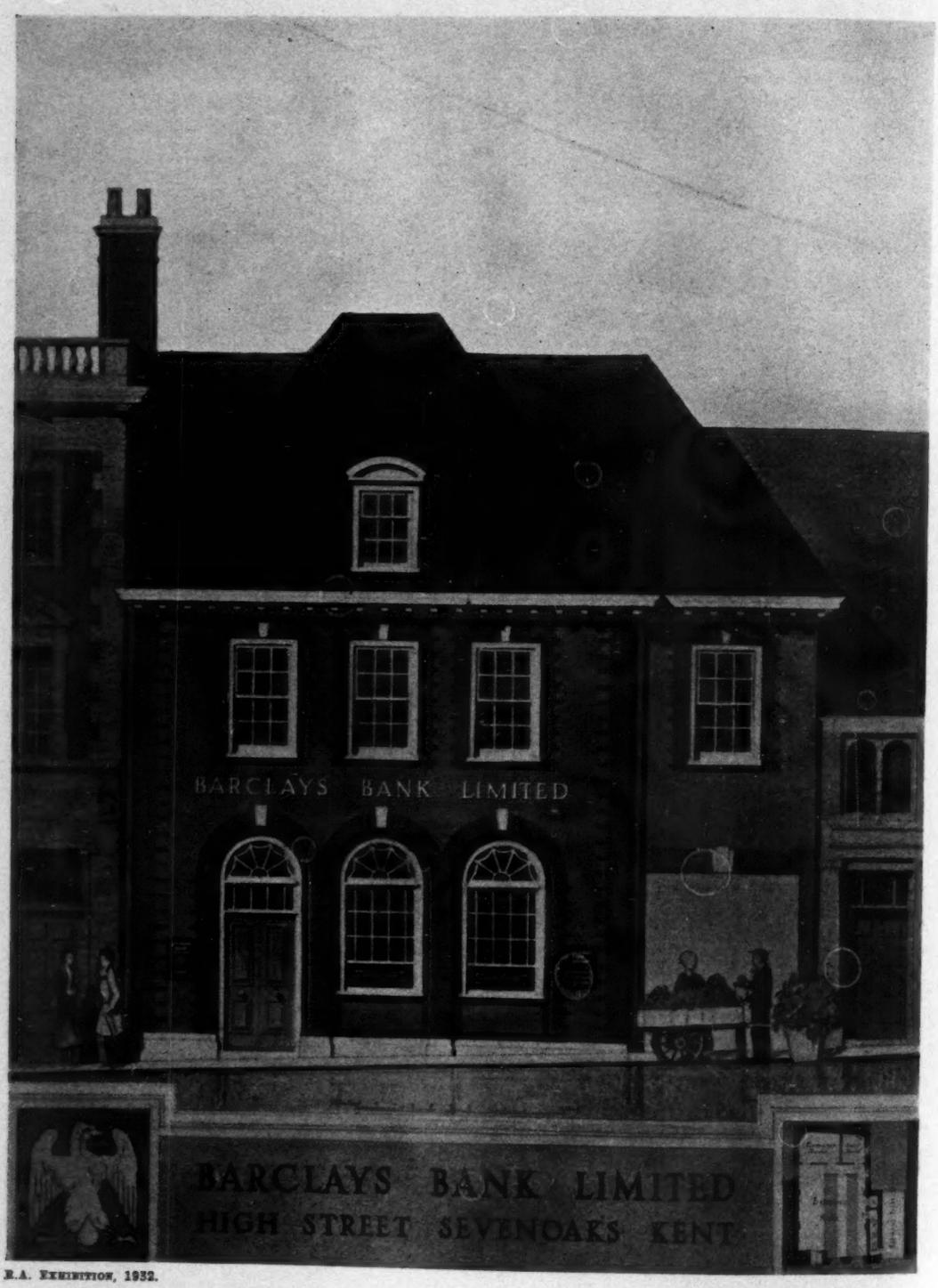
Lewisham Borough Council. Opening of New Town Hall Extension by H.R.H. the Duke of York.

THURSDAY, *June* 30.

Housing and Town Planning Council. Conference. At the County Hall, S.E.1.

WEDNESDAY-FRIDAY, *July* 6-8.

Auctioneers' and Estate Agents' Institute. Annual Provincial Meeting. At Bournemouth.



R.A. Exhibition, 1932.

Messrs. Mitchell & Bridgwater, AA.R.I.B.A., Architects.

UNEMPLOYMENT AND "SCALE" FEES

At the present time, when economy is the national password, there is every reason to examine with attention any ideas which may assist clients and architects in new building enterprises. Incidentally, the present application of the economy idea reminds us of the early days of the war, when any person of somewhat unusual appearance was presumed to be a spy. Why it should be thought economical to keep architects, builders, and a large section of the population in a state of suspended animation and at the same time pay out considerable sums in the "dole" and other forms of relief, is beyond the comprehension of any one outside the House of Commons. The fact remains that many architects are enduring considerable hardship: builders are idle, public and much private work is held up with little prospect of any improvement for some considerable time.

We suggest that the moment is opportune for a revision of the scale of architects' charges which would not be a revision of some details—an alteration in some clauses of minor importance—but a real attempt at a fundamental alteration, designed to meet existing conditions. The defect of the existing scale, it seems clear, is that it does not recognise or provide for the various kinds of work an architect may be called upon to perform, and for this reason is sometimes evaded or disregarded, not only by the unattached or unqualified architect, but by distinguished members of the very Institute by which it was drawn up. This is obviously an undesirable state of affairs and produces just that condition of doubt and uncertainty both in the mind of the architect and his client which a fixed and definite scale of fees was designed to prevent. A few examples will suffice to show the defects of the existing scale as a measure for the adequate remuneration of the architect's services.

Let us first take the case of an ordinary commercial concern which has an expanding manufacturing business but which has built up that business on a small working capital and small profit margins in its annual turnover. It is decided that a new factory, with administrative offices and a warehouse, is necessary, and it is also decided that this should be designed by a properly qualified architect. The requirements with regard to the factory itself have been worked out in detail, and the arrangement of the offices and the cubic storage capacity of the warehouse have been settled. Very probably a rough plan has been prepared of a kind with which all architects and builders are acquainted, and a rough estimate of cost has been arrived at on this data which may be somewhere between £20,000—£30,000. The architect is called in and prepares sketch plans and estimates of cost. In the latter he includes an item for fees which under the scale come to well over £1,000. This causes considerable surprise and it is pointed out to him that the factory is no more than four enclosing walls with a simple roof, the interior arrangement of which has already been planned in detail; that the warehouse is a very simple matter of steel-framed construction, and that the office block, which more especially required the architect's skill in planning and design, will cost but a fraction of the total. The architect may be asked to explain why, if the fee for the admittedly difficult and complex problem of the planning of this office block is 6 per cent., the same fee is applicable to the factory and warehouse.

What reasonable answer can he make? If he adheres strictly to the scale, he will probably find that his services are dispensed with, and if, still keeping to the scale, he sends in an account of, say, £500—£600 for the work already done, he may be paid, but the impression that architects are "robbers" will remain, and it is more than probable that the final result will be that the industrial company concerned will decide to create an architectural department of its own, where any future work can be done by a staff of one or two fully qualified architects at a total yearly outlay for salaries of less than half the fee which could be charged under the scale for one factory or office building of average size. Viewed from the standpoint of the average manufacturer the thing is absurd. Viewed from the point of view of the architect it presents difficulties and certainly tends to increase unemployment, because if this solution of the problem were generally adopted the most remunerative and important commissions would cease to exist.

In actual practice it must be rare that a strict adherence to the scale charge is attempted, and the usual fee is probably somewhere between 2½ to 3 per cent. for work of this type. This seems to be a reasonable charge for the services required, but if it is more or less generally accepted the "scale" becomes discredited and architects will be left in the precise condition which the "scale" was designed to prevent.

Now let us take another example—that of one of the larger office blocks which are rising almost every day in various parts of London and the larger provincial towns. The scheme is nearly always of a speculative nature, in so far as a return for outlay is expected, except in the rare cases where the whole building is required for one concern and not for letting purposes. The architect here has certainly a more difficult task than in the planning of the factory, but the upper parts of such buildings are usually large voids to be divided up later to suit tenants. And, generally speaking, the larger the building the less are the difficulties in planning. Yet if this office block cost, say, £100,000, the architect's fee would be £6,000, whereas if the cost for a smaller block on a difficult site did not exceed, say, £10,000, he would only get—still on the present scale—£600, though the time, ingenuity and trouble expended might, quite easily, be double that required for a much larger block on an island site.

It therefore seems reasonable to suggest that when the revision of the scale is being considered, this problem should be squarely faced and measures devised to deal equitably with modern conditions. It may be observed that the principle of differential treatment for various types of work is already admitted in the existing scale, where a special rate is provided for housing work. Anything which would tend to make the architect's services available to a wider public should, we feel, be investigated because it is one of the obvious methods of curing the problem of unemployment.

NOTES

Waterloo Bridge. A LARGE and representative list of names has been attached to a protest against the destruction of Waterloo Bridge, addressed to the Prime Minister. This includes some 30 Fellows of Colleges, 10 University Professors and 12 Heads of Houses in Oxford. Thus Cambridge and Oxford universities have both done their duty in protesting. Mr. Arthur Keen writes to the Editor of *The Times* in reference to this protest: "The petition that has now been sent from Oxford should go far towards convincing members of Parliament that Waterloo Bridge must be preserved. It emphasizes anew the value of the bridge as a great architectural monument, and this value was acknowledged as long ago as 1925 by the Bridges Committee of the London County Council. It is not questioned by anyone who is qualified to speak on such a matter." *The Times* in Wednesday's issue said: "On the æsthetic, or what Sir Percy Simmons and Mr. Herbert Morrison apparently consider the sentimental, side of the Waterloo Bridge question, it is enough to say that their attitude is a flat defiance of the great body of cultured opinion in the country."

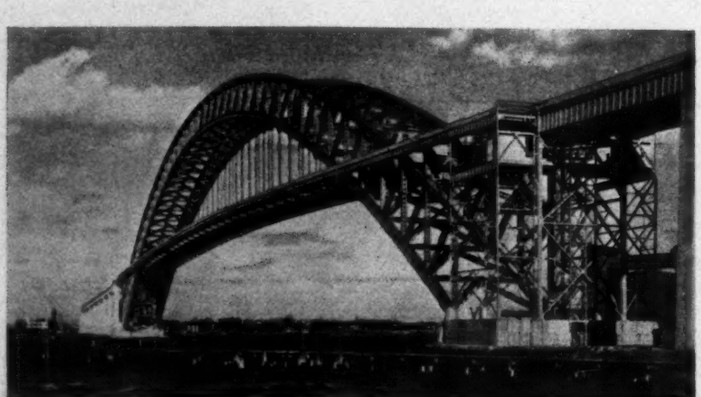
The R.I.B.A. Competition. WE are glad to note that the members of the R.I.B.A. who took part in the recent New Premises Competition have received a letter of thanks from the President, Dr. Raymond Unwin. The letter is as follows:—"On behalf of the Institute I wish to send you a special word of thanks for your contribution to the great competition for our new building. I would like you to know how very highly the work of all the competitors has been appreciated. The members of the Institute responded most loyally to this call. The numbers of leading men and of our oversea members who have helped to make the competition a success by submitting designs are very gratifying. There can, of course, be only one winning design; but the assistance which has been given by everyone who entered the competition towards securing the Institute a worthy home, and towards the improvement of the art of architecture, has filled us with gratitude to our members and pride in their industry and loyalty. In the name of our Institute please, therefore, accept most hearty thanks."

The Institute Papers. MR. SYLVESTER SULLIVAN'S lecture at the R.I.B.A. on Monday evening (the last ordinary general meeting of the session) attracted another large and appreciative audience. The lecture, of which a report appears in this issue, was one of uncommon value, containing, as it did, much useful information on the design and planning of office buildings, the fruit of many years' practical experience of such work. In this connection we should like to offer a word of congratulation to the Institute on the success of the arrangements for the current session. Few sessions can have presented a series of papers of such practical and sustained interest as we have had during the past few months.

City Buildings. AN exhibition of city buildings by some twenty well-known architects, has been on view during the past week at the Institute. Amongst those who contributed drawings and photographs were Sir Edwin Cooper, Sir Herbert Baker, Mr. Maurice E. Webb, Sir Frank Baines, Messrs. Mewes and Davis, Mr. L. Sylvester Sullivan, Mr. W. Curtis Green, Mr. A. Victor Heal, Messrs. Gunton, Campbell Jones, Son and Smithers, Mr. E. G. W. Souster, Messrs. Collcutt and Hamp, Mr. F. R. Gould and Sir Giles Scott, Messrs. Stanley Hall, Easton and Robertson, and Sir John Burnet, Tait & Lorne, and J. L. Simpson. A striking feature of the exhibition was the large ground plan of the Bank of England from Sir Herbert Baker.

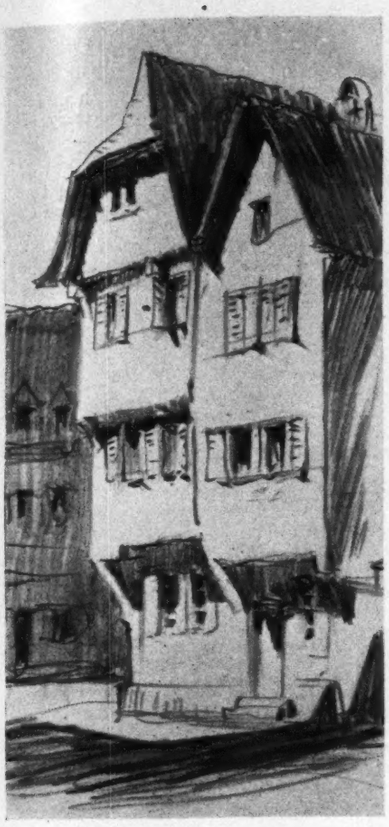
Architectural Scholarships. THE establishment of forty Fellowships for British subjects tenable at certain American Universities is a kindly and generous action by the Commonwealth Fund of New York, a philanthropic institution existing since 1918 and supported by gifts from the late Mrs. Stephen Harkness. Besides these there are lesser Fellowships for the Dominions. It is not often that an architect is appointed, but two of the Liverpool students have had them (in 1926 and 1930). The only architect to be awarded one this year is a Liverpool student, Mr. Denis Winston, B.Arch., A.R.I.B.A. The award which has just been announced is worth £750 a year. During the vacation of his fourth year, Mr. Winston went to America and was given a temporary paid position in the offices of Messrs. Corbett, Harrison & MacMurray, of New York City, who were, we understand, greatly impressed by Mr. Winston's ready adaptability to different methods of building and organisation. On his return from America, Mr. Winston prepared, as the subject of his degree thesis, a set of drawings for a new Repertory Theatre for Liverpool on the site of the present Playhouse Theatre, but to include a small theatre for special performances below the large theatre. This, with the necessary independent approaches and exits to satisfy the licensing magistrates, involved many difficult problems which he very successfully solved. In the following June he was awarded a Degree with First-class Honours in Design. Mr. Winston is a finalist for the Rome Scholarship which has yet to be awarded.

The Kill van Kull Bridge, U.S.A. A NOTABLE feat of bridge construction which compares with the Sydney Harbour crossing has been achieved in the impending completion of the Kill van Kull Bridge, New York State. The Kill van Kull is an important shipping artery dividing New Jersey from Staten Island, New York, with an annual tonnage of shipping exceeding that of the Suez Canal. In 1925–6 the Port of New York Authority was authorised by the States of New York and New Jersey "to construct, operate and maintain a bridge over the Kill van Kull," and a report by the Port Authority states that "a bridge for vehicular traffic was justified, that it was financially feasible and that it could be constructed for sixteen million dollars within four years." The bridge, planned and built under the direction of Mr. O. H. Ammann, Chief Engineer to the Port of New York Authority, in conjunction with Mr. Henry W. Troelsch, Designing Engineer to the American Bridge Company, was the result of a comparative study of three suitable types of bridge, cantilever, suspension and arch. The type eventually chosen was a single-arch span bridge, for reasons of the greater rigidity offered and also on grounds of appearance. Geological conditions were good, a continuous ledge of rock being shown by test bores to extend over the whole location, and on November 14, 1931, the bridge—though not complete in that the monumental masonry piers forming the upper part of the abutments have to be formed, as shown in our



The Kill van Kull Bridge, New York and New Jersey, U.S.A.

MR. O. H. AMMANN, Chief Engineer to the Port of New York Authority.



Old Houses, Wissenburg.

From a sketch by Mr. E. Guy Dawber, A.R.A.

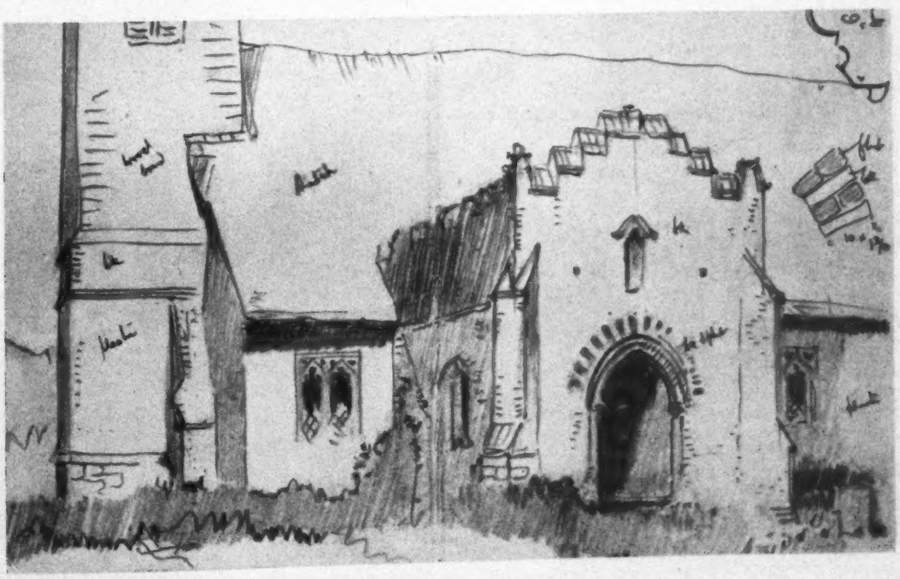
illustration—was opened for traffic. The cost is expected to be 14 per cent. below the original estimate.

A Comparison with Sydney Harbour Bridge. Some comparisons with Messrs. Dorman, Long's fine bridge spanning Sydney Harbour may be of interest. Both bridges are of the two-hinged steel arch type, the steel tonnage of the Kill van Kull being 26,250 as compared with 50,000 tons at Sydney. The span of the former is 1,652 ft. 1 in between centres of bearings on piers, as against the 1,650 ft. of the Sydney bridge. The crown of the latter is, however, 437 ft. above water level against the Kill van Kull's crown of 327 ft., this difference being necessary for the ocean-going traffic using Sydney Harbour. The Sydney bridge is considerably the wider, the width between trusses being 98 ft. 6 ins., as against 74 ft. at Kill van Kull. Both these bridges, it is very clear, will stand as witnesses not only to the engineering genius of our time but also, happily, to the fact that beauty and service can be as closely allied to-day as they have been in the past.

The Beauties of Wales. When we do our best to protect the beauties of the countryside we are confronted by many difficulties, such, for instance, as the dumps of waste in the quarry and colliery districts in North Wales, which, as Mr. Taliesin Rees points out in an interesting letter to the *Liverpool Daily Post*, have been creating serious eyesores for many years. Mr. Rees appeals to Mr. Clough William-Ellis to remember that the obliteration of these eyesores would be of more value than charming examples of Italian architecture at Portmeirion. This is hardly a correct parallel, because the enthusiasm which created Portmeirion would, we fear, beat its wings in vain against the dumps of the great quarries.

Tenants in Municipal Housing Schemes. A subject to which we have often in these columns drawn attention received further ventilation in a letter from Lieut.-Col. F. E. Fremantle, M.P., in the columns of *The Times*. This is the tendency of local authorities to let their State-aided houses to people who are well able to afford alternative accommodation; to the exclusion of that class of poorer tenant whom the subsidy was designed to aid. That this process has materially hindered reduction of overcrowding is obvious, as must also be the fact that under these circumstances an unfair load is being placed on the rates. Colonel Fremantle puts the matter clearly when he states:—"It is clear that vast sums voted for the housing of those who need it are being abused. A means test is required, and if it cannot be applied by law, it can and should be applied by public opinion; and for future subsidies the appropriate conditions should be enacted. Will others interested in housing consider how best to turn to account the housing already provided with the help of rates and taxes, so as to husband the limited resources available for the reduction of overcrowding and the clearance of slums?"

The Chartered Surveyors' New President. At Monday's meeting of the Chartered Surveyors' Institution, Mr. Charles Gerald Eve was elected President. Mr. Eve was born in 1872, at Silsoe, Bedfordshire, his father being the late John Richard Eve, of Bedford, a Fellow of the Institution. Mr. Gerald Eve was educated first at Dover College, and then at Bedford School and became articled to his father at Bedford. He was elected Professional Associate of the Chartered Surveyors' Institution in 1894, and Fellow in 1901, after gaining the Crawter Prize for valuations in the Final examinations of the Institution. He was elected to the Council of the Institution in 1922, a vice-president in 1929 and senior vice-president in 1931. He was president of the Rating Surveyors' Association in 1923 and a member of the Council of the Land Agents' Society from 1908 to 1912. He is a Governor of the College of Estate Management and a Director of the Yorkshire Insurance Company.



Ixworth Thorpe.

From a sketch by Mr. E. Guy Dawber, A.R.A.

GENERAL NEWS

Professional Announcements.

Mr. R. E. Stewardson, F.R.I.B.A., announces that he has changed his address from the Shanghai Club to 2, Canton Road, Shanghai, and requests that trade catalogues and samples be forwarded there as soon as possible.

Mr. A. Ernest Shennan, F.R.I.B.A., architect and surveyor, has removed to more convenient offices at 17, North John-street, Liverpool (fifth floor, North House). Telegrams: Peristile, Liverpool; telephone number 1663 Central.

The partnership between Mr. Arthur F. Usher, F.R.I.B.A., and Mr. Joseph Hill, F.R.I.B.A., under the style of Messrs. Yetts, Sturdy and Usher, has been dissolved and the practice will in future be carried on by Mr. Hill at his present address, No. 34, Gordon-square, W.C.1. The title of the firm in future will be Joseph Hill, F.R.I.B.A. (formerly Yetts, Sturdy and Usher).

Ruskin's Home for Sale.

Brantwood House, Coniston, the home of John Ruskin from 1871 until his death, is to be offered for sale. The house stands on the wooded slopes of Coniston, looking across the lake to "Coniston Old Man" (2,638 ft.). Besides the house, with the "Ruskin Garden," there are two farms, lakeside pastures, fell lands and woodlands, in all about 500 acres.

District Surveyor Examinations.

The R.I.B.A. Statutory Examination for the office of District Surveyor under the London Building Act, and the Examination for the office of Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on October 12, 13 and 14. The closing date for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., is September 21. Full particulars of the examinations and application forms can be obtained from the Secretary, R.I.B.A.

Milton Abbey as a School.

The *Catholic Herald* announces that the Benedictine Monks of Downside Abbey have purchased from Sir Eric Hambro, ex-M.P. for Wimbledon, his Dorsetshire seat, Milton Abbey. The result of the negotiations for the purchase of the property, which have been proceeding for some time, is that the abbey has passed back into the hands of the Benedictine Monks. The intention is that Milton Abbey should become a sister school to Downside, which is conducted as a large school for boys.

Proposed Re-building at Rome.

A five-year plan for the replanning and rebuilding of a great part of Rome has, according to the *Daily Express*, been approved by Signor Mussolini. The scheme includes slum-clearance, the constructing of an underground railway, the erection of two new main railway stations, and the creation of a new port on the seaboard, to be connected with Rome by a 15-mile long canal. It is announced that plans are ready, but it is not stated what the cost will be nor how the money will be obtained.

University College of Swansea Sports Pavilion.

The new sports pavilion for use of the University College of Swansea was formally opened on May 24 by Sir Walter Buchanan Riddell, the chairman of the University Grants Committee. The building is situated on elevated ground overlooking the playing fields, which have an area of about 12 acres, and has been erected at a cost of £5,000. It is a simple design on Georgian lines, and has accommodation on the ground floor consisting of separate, large dressing-rooms, plunge and shower baths for both men and women students, secretary's room, etc., while on the first floor is a large tea and refreshment room, committee rooms, kitchen and caretakers' quarters, access to the balcony being from the main stairs and the tea room. The work has been carried out from the designs of Mr. Glendinning Moxham, F.R.I.B.A., of Swansea.

Exhibition of Architects' Working Drawings.

An exhibition of architects' working drawings will be held in the R.I.B.A. Galleries from Wednesday, June 15, to Saturday, June 25, inclusive. The exhibition will be open daily between the hours of 10 a.m. and 8 p.m. (Saturdays 5 p.m.), and will include drawings lent by Mr. E. Stanley Hall, F.R.I.B.A. (Laboratory Block, Queen Charlotte's Hospital, Hammersmith; house at Headley, Surrey); Mr. T. P. Bennett, F.R.I.B.A. (Saville Theatre); Mr. H. T. Buckland, F.R.I.B.A. (Violet Melchett Infant Welfare Centre); Messrs. Herbert O. Ellis & Clarke, FF.R.I.B.A. (*Daily Express* building); Mr. W. H. Ansell, F.R.I.B.A. (hospital at Westbury, Wilts). The exhibition will contain the drawings that a practising architect hands to a contractor, and some very comprehensive sets will be shown. A good idea will be given of the volume of work which must be done by an architect's office to produce a building. A special students' evening will be held at the Exhibition on Wednesday, June 15, at 8 p.m. All students are cordially invited to attend. It is hoped that the architects (or their representatives) who have lent exhibits will be present in order to explain the drawings to the students. Refreshments will be provided, and no cards of admission are required.

UNEMPLOYMENT IN THE BUILDING INDUSTRY

We have received the following copy of a letter which has been addressed to the Prime Minister by the President of the R.I.B.A.:—

Dear Prime Minister,—At a meeting of the various branches of the building industry, held on Wednesday, March 30, I was commissioned as chairman to send to you the thanks of the meeting for your very admirable and helpful statement made on the occasion of the opening of the Abbey Road Building Society's new house. Showing the need for such a statement, evidence was quoted by those present of many cases where useful and much-needed building or housing work had been abandoned in the idea that such needless economy was desirable.

The representatives of the industry wished you to know that the various branches were actively engaged in exploring together the various possibilities of improving technique, organisation and economy in connection with building operations, so that the industry may keep fully abreast of progress and invention calculated to enable a more effective service to be rendered to the community.

A representative body, called the "Building Industry Council of Review," is studying various matters affecting the efficiency of building operations and reporting upon them. In addition, similar efforts to improve the service which the industry can render are being made by the various sections. From the point of view of those investing money in useful building operations, the present time offers advantageous conditions for securing favourable terms and rapid progress: and it is hoped that a substantial reduction in the very serious unemployment figures of the past winter months may soon take place. Towards this end your statement, for which the best thanks of the industry are tendered to you, will be of great help.

(Signed) Raymond Unwin,
President of the Royal Institute of British Architects.
Chairman of the Joint Committee.

[The bodies represented at the meeting were:—The Royal Institute of British Architects, the Building Materials Manufacturers' and Suppliers' Committee, the Clay Industries Employers, the National Federation of Building Trades Operatives, the National Federation of Building Trades Employers, the Chartered Surveyors' Institution, the Building Industry Council of Review.]

OBITUARY

E. Reginald Taylor.

We regret to record the death of Mr. E. Reginald Taylor, the hon. secretary of the British Archæological Association.

E. J. Miles, A.M.Inst.C.E.

Mr. E. J. Miles, the Chelmsford borough engineer and surveyor, who had been closely associated with the construction of the new by-pass road, died in Chelmsford Hospital a few hours before the opening ceremony. Mr. Miles, who was 58 years of age, had been at Chelmsford for 12 years, and had carried out many important schemes, including the building of 1,000 council houses.

William J. Devlin, A.R.I.B.A.

We regret to record the death of Mr. William J. Devlin, A.R.I.B.A., at Aberdeen. Mr. Devlin, who was 62 years of age, went to Aberdeen from London in 1909, and as he was well versed in ecclesiastical architecture he found a considerable amount of employment in connection with the erection of churches and other ecclesiastical buildings in the North of Scotland for the Roman Catholic authorities. He was the architect for the church at Foyers, Inverness-shire, for alterations at Elgin and Dufftown, for a large extension to the Convent of the Sacred Heart at Aberdeen, for the church at Rosewell, and for several conventual extensions in the diocese of St. Andrews and Edinburgh, and, more recently, for St. Columba's R.C. Church, Banchory. Six years ago he opened an office in Edinburgh.

COMPETITION NEWS

CURRENT COMPETITIONS.

	Particulars published in "Builder."	Sending in date.
Designs for Traditional Cottage, for Dominion Dairy Co. 16 prizes of £21. Assessors, Sir Edwin Lutyens, Mr. John Murray and Mr. Andrew Mather, FF.I.A.A. Details from and plans to Secretary, Incorporated Association of Architects and Surveyors, 1, Wilbraham-place, S.W.1 ...	May 27	June 16
Design for all-British house to cost £1,000 exclusive of site and architect's fees. Premiums of 50, 20 and 10 guineas. Designs to the organisers Incorporated Association of Architects and Surveyors S.W.1	Nov. 20	Sept. 1
Open Competition designs for new Hospital Buildings on Woodlands Estate, Scarborough, for Scarborough Hospital and Dispensary. Premiums of £300, £200 and £100. Assessor, Mr. Hubert M. Fairweather, F.R.I.B.A. Designs to the Hospital Hon. Sec., Scarborough ...	March 4	Oct. 1
Town plan for City of Stockholm. 60,000 kr. (approximately £3,000) in prizes, including first prize £1,000 approximately. Assessors include E. G. Aspland, Ragnar Ostberg, and G. L. Pepler. Programme (free), documents (on 40 kr. deposit), from Registrar, Town Planning Office, Stadhuset, Stockholm	May 27	March 1, 1933
Designs for buildings for the practice of sports, for Tenth Olympic Games. Prizes will be awarded by international jury. Details from Mr. L. Rome Guthrie, c/o R.I.B.A.....	Jan. 22	—

The Freemen's School, Ashtead Park.

The City Corporation, in June, 1931, decided to carry into execution the erection of a new dormitory block for girls at the school at an estimated cost of £10,000, and to appoint an architect not in the office of the City Surveyor to supervise the erection of the new building. The Corporation, however, is now considering the opinion "that it would be better to make other provision for the girls . . . and confine the scope of the school to the education of boys only," when the appointment of an architect and the proceeding with the building of the dormitory would be deferred until the policy to be pursued is defined.

CENTRAL SCHOOL OF ARTS AND CRAFTS

ANNUAL EXHIBITION OF STUDENTS' WORK.

THIS always interesting and vivacious exhibition, from which we have come to expect a good average, is a little disappointing this year. Not that it lacks interest, but that there is less distinguishing character from the general level of art school production. In some of the silver-smithing, for instance, there is a certain hardness, as though such was the impress of a machine age that it even infected the work, though executed on sound craftsmanship lines. We do not expect to be reminded of Regent-street when looking at work done on such far better principles, which should rather remind us of mediæval silversmithing. It is as though we made the mistake of regarding the old work as defective in craftsmanship in its freedom from mechanical finish. We say this only in accepting the school's high standards, which should direct the work away from anything hard and mechanical.

So in the bookbinding, the design of the tooling should preserve the restraints that belong to the work. The example by R. Moody has novelty rather than distinction. The glazed pottery, both in shape and ornament, preserves its good character. There are some very successful examples in the sculpture section, in which appreciation is shown of the material, but there is danger of falling from one convention into another. In avoiding the naturalism of the cast of the nude figure placed on one side of the entrance door we may fall into the opposite extreme of amorphous vacuity as in the group on the other. Good as this latter is in sculptural sense, it would have been helped more by reference to nature than by contemporary fashion.

Some interesting plans and elevations are shown in the architectural section, of which the church by D. W. Wilkinson, showing the influence of Sir G. G. Scott, is a prominent example. It is tempting to linger over the various exhibits—the skilful wood engraving, the tasteful embroideries (of which the sampler by G. Smith is such a delightful example), the variously treated lithographs, the life and animal studies in chalk and charcoal, the stained glass, rather poor in colour, of which the panel of fishes by D. Hoole is the most original example. But in addition to bestowing attention on the various exhibits it is useful to consider what is to become of it all.

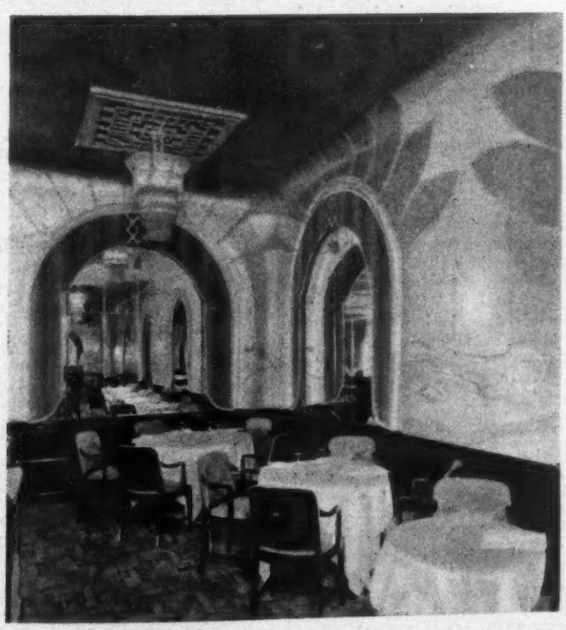
Art and industry—are they moving towards a closer union? Can the student hope to carry into the industries of the country the lesson of sound craftsmanship he has learnt at these schools? It would be idle to suppose so. What, then, has gone out of the national life that this absence of feeling, of the human touch, is so often lacking? For the loss is not only in manufactures; it penetrates right through. We were only recently reminded of this when looking at an example of late Gothic revival architecture—so scholarly, impeccable, and yet so lifeless and cold; and then happening soon after in a quiet valley on a little rubble whitewashed church with its Jacobean pulpit, denied all scope beyond the bare needs of worship, yet the spirit of it was one in complete accord with nature and beauty. Nor is the difference anything to do with the manner of building, or whether we build large or small; the difference is in ourselves.

Let us look away from reports of commissions on art and industry to the facts of the time, to the philosophy of trade and salesmanship recently pronounced by one of the largest stores, in which we were told that the idea of permanence, of making things well and to last—once a principle of work—had under modern conditions become a vice. What we needed was a quick turnover, and therefore things should not last, so that they may be required over and over again. Craftsmanship—the labour to produce beautifully—was a positive evil, and more to the same effect.

If Commissions on Art and Industry would address themselves to the real nature of the problem instead of concentrating on more Departments, more exhibitions and more officials—to expose the fallacies being broadcast about the nature of industry, there would be better prospects for the students on leaving the schools. It is astonishing to us to see the names of the societies associating themselves with the recently published report and lending themselves to these half-truth interpretations, which in their reiteration now, over so long a period, remind one of the Indian Fakir who held his arm outstretched above his head for over twenty years, so that it could never be put down again. So instead of examining into the real causes of the failure to unite art and industry which are obviously of another sort than those for which the Commission's remedies will avail, we continue, nevertheless, to pursue them like the Bourbon kings, who never forgot and who never learned anything.

If the student, except in those rarer cases of outstanding ability, is not either to be absorbed back into industry, or left without employment he must depend on himself for the solution; and it is not far to seek, in that it lies within him. The task is a noble one—that he should insist on the standard of work on which his own self-respect depends. In such a spirit—that of William Blake—but in the armour of a more disciplined craftsmanship, it is for him to lead; and were this to happen, art and industry would soon become united, seeing they are of the same substance, and only arbitrarily divided because as a nation we have gone astray.

[The exhibition will remain open until June 25, Mondays—Fridays from 10 a.m. to 8 p.m.; Saturdays from 10 to 12 noon.]



Castle Harbour Hotel, Bermuda: Corner of Ball Room.

MESSRS. YATES, COOK & DARBYSHIRE, IN COLLABORATION WITH MESSRS. MAYERS, MURRAY & PHILIP, Architects.

"THE BUILDER" DEBATE

LI.—ARCHITECTURE AND THE ACADEMY.

SIR,—"Positive" puts words in my mouth, of course. I do not suggest any attempt to show real buildings, but merely state the fact that a display of architectural drawings cannot express real architecture, and that, therefore, we do well not to exaggerate the importance of the architectural room at the R.A., which cannot relate to the art of Architecture as other rooms can relate to those of painting, sculpture, etching, etc. That is the main point of the debate, although "Positive" has drawn the model "red herring" across the trail.

NEGATIVE.

SIR,—"Positive" seems to be attempting too much at one time. The crying need of the moment is that the authorities should plan ahead to give adequate accommodation to the architectural section of the exhibition. If this were granted, the profession has carried its main point, to which all others are subsidiary details.

So far as models are concerned, there will not be many who have much sympathy with "Positive's" argument. It is obvious that such bulky exhibits would require four or five times the area now occupied by drawings, so that, if we were fortunate enough to have the accommodation increased by this substantial amount, there would still be no real increase in representation.

Another aspect of the question which he appears to have overlooked is the cost of the models. A really good model of an elaborate building would be a very costly item, and not likely to be popular with architects, other than those in comparative affluence.

I agree that a few models would add popular attraction to the show, but we already generally have a few models. The main exhibition, however, is bound to continue as one of architectural drawings, and we can do with greater number and variety.

A REASONABLE OPTIMIST.

SIR,—I welcome "Positive's" plea for models, though possibly from other motives than he expresses. There are a number of able craftsmen and modellers at present unemployed, and drawing unemployment pay, who would be only too pleased to undertake the interesting task of rendering an architect's design in model form. These men seldom appear in print or as executant artists, and, if such a wide opportunity could be opened, they would stand to benefit appreciably. If this aspect of the question could be borne in mind, "Positive's" suggestion might obtain a better hearing.

LABOUR.

CITY OFFICE BUILDING.

A PAPER on this subject was read at the R.I.B.A. on Monday evening by Mr. L. Sylvester Sullivan, V.-P.R.I.B.A., when the chair was occupied by Dr. Raymond Unwin, P.R.I.B.A.

After some introductory remarks, the lecturer dealt with the subject under various headings, as follow :

The Site.—Unless the building owner was in a hurry, he said, and had "money to burn," it required years of patient foresight to acquire, extend and consolidate a site large enough to accommodate an office building on an economic scale; even then it might be necessary to await the lapsing of leases, to negotiate their acquirement, to exchange freehold interests, or to arrange new lettings on parts of the site so as to allow it to be dealt with as a whole. Generally speaking, one might be certain that most of the great modern buildings one saw that had been erected in the heart of the City were the outcome of negotiation and investment extending over long periods. Property owning in the City was a long-sighted business hedged about with all kinds of difficulties, some only of which it would be possible to touch upon.

When called in to advise about the purchase of a site, it was necessary to consider the proposal at once from several aspects—but especially as regards opposing ancient lights. It was advisable, even at that early stage, having taken particulars of the neighbouring windows, to rough out plans and sections showing in a conservative manner what could be got out of the site from the economic standpoint. Questions of existing tenancies arose here also, for these might cause delay or have to be bought out and so add to the burden of cost, or even, if immediate development was required, render the site unsuitable. Special considerations might arise where the clients were buying and building for their own occupation. Here, perhaps, their chief concern was not so much a profit rental as proper and convenient and possibly luxurious housing of the business in question. In these cases it was equally essential to consider the site at once in the way suggested in order to convince oneself that the project in mind was one they might be advised to proceed with.

Rating.—In every case it was best to make the closest estimate one could of the rental value of the building in order to arrive at an approximate idea of the rates and taxes that would be an annual charge upon it. One would find that the rating authority would base their final valuation on the actual floor space of the building available for occupation, that was, they would make all proper allowances for staircases, lifts, corridors and services, and only concern themselves with the rental area of the letting spaces, or, when rents were known, with the rents themselves. Thus one would be able to negotiate and agree with the rating authority where the owners were the occupiers. In other cases where the buildings were let off at rentals, the rentals were the basis of valuation for assessment. Actual negotiations, however, would not take place until the buildings were finished, or perhaps even occupied.

Ancient Lights and Agreements.—In the preparation of preliminary plans it might be disclosed that there was some dominating window light tucked away in some neighbour's back area that might render one's development so difficult as to make it desirable that the light, or the building it belonged to, should be bought out and added to the site. This question of neighbouring lights was of such importance that every consideration should be given to the problems they caused at the earliest moment. It should never be forgotten that they could not safely be disregarded. At the same time, he believed that the bad old days of ancient light blackmail were nearly, if not quite, past. In this connection it was desirable to emphasise that mutual agreements to restrict the height of buildings fronting on narrow thoroughfares were frequently of more importance than mutual agreements to increase height in more open spaces, because high buildings in poorly lighted alleys were not profitable propositions.

Approximate Estimates.—Having satisfied oneself that one's sketch plans were no more than was reasonable, take out one's cubes, priced on the safe side, and arrive at an approximate cost of one's building, plus architects' fees, added to the cost of the site and demolition together with reasonable interest on the whole for the length of time one estimated for the operations, the total of which would then represent the client's outlay. On the other side of the account take out the net letting areas of each floor and put against each floor such rents per foot as would be reasonable for the neighbourhood—rents varied in neighbourhoods or even in the length of or from side to side of a street. Tot up those rents and one would have an approximation of gross rentals. From those gross rentals deduct from 40 per cent. to 50 per cent. for rates, water, management, unlets, ground rent and sinking fund, if any, and insurance outgoings and one would get an approximation of net return, which compared with outlay would show the interest on the capital and whether or not it was a proposition one could advise a client to proceed with.

Site Value.—One would have had in mind the large cost of the land per foot super and, therefore, have valued it in inches—only specially luxurious clients would afford themselves a strip of land 5 or 6 feet deep around the perimeters of their sites for the architectural effect of columns which did not earn their keep. The land and loss of floor space entailed by the employment of those adornments would not as a rule be looked on favourably, and certainly not by clients building for revenue. To give one some idea of the commodity one was using it might be well to remember that if one placed a two-shilling piece on every square inch of the site one might still find that one would have to raise one's offer to half-a-crown an inch before one was able to buy.

London Building Act.—The building being in the City was under the London Building Act, but certain parts of that Act did not run in the City, and in the case of an office building, certain other parts of the Act were ineffective. In the City the amended L.C.C. By-Laws regarding ventilation of w.c.'s did not apply, the City Corporation having its own regulations. City By-Laws required the least width of an area into which w.c.'s ventilated to be 5 feet to the opposite wall. Consequently any areas taken down into the basement for lavatory purposes must have at least that width in its narrowest part. One's building might be 80 feet high from the pavement in the centre of frontage to the top of the parapet. Not being a trade building, it might have two stories in the roof, but there did not appear to be any limit to the respective height of those stories. If one applied to the London County Council to build vertical walls above the 80 feet limit it might be found that for this concession they would limit the total height to 100 feet and require the walls in question to be set back and kept within the angle of 75 deg. above the 80 feet line. On the other hand, one would realise that dormers were permissible and would find nothing in the Act that limited the length of a dormer. So by a little careful design one could, with dormers, obtain rather more floor space and still keep the inside of upper stories vertical though projecting through the angle of 75 deg. One would also notice that in the case of a high building as defined by the Act, the upper stories must be fire-resisting, though this would hardly affect one beyond its remembrance, as there was little doubt that the whole of one's building would be steel-framed and as fire-resisting as one could make it. If the building was a bank or insurance office, or the Stock Exchange, it would have certain privileges not permissible in other buildings. If, of course, the job was the Bank of England, it was entirely exempt.

Different Categories.—In the main, office buildings seemed to divide themselves into three categories. Firstly, there was the monumental building erected by the client for his own occupation—in this category might be put the home of "big business," with luxury in every public part and with glittering board and committee rooms. It was here the architect was expected to employ the 5 or 6 feet diameter columns already alluded to, with deep recesses and effective shadows in the facades, with windows of true architectural proportion and balance between void and walling, with great entrance openings cutting up through two or three stories, and other caviare permitted to and expected by the epicurean magnate. This type was the mason's joy, rather pompous, solemn and watch-chainy, aldermanic and dignified. All, one suspected, quite good advertisement.

The next category differed from the first in degree because an economic return was expected to result, but were also buildings of a luxury type meant to appeal to big businesses not big enough to require whole edifices to themselves. These blocks might be a speculation, but were speculative only in the sense that they depended for their return on more or less numerous lettings. Their appointments and service were perfect and their owners were prepared to house their tenants in as luxurious a manner as might be desired. Their facades might be no less imposing and need quite as much of an air about them. Indeed, it was necessary that they should have, for they were inviting custom.

The buildings in the third category were much more practical and mundane affairs, built to last, with what luxury there was about them generally concerned with simple quality, good entrance halls and staircases, sufficient lifts and first-rate sanitary arrangements. These were essentially economic propositions with as wide an appeal to prospective tenants as possible, with pleasant though inexpensive facades, and with floor spaces readily adaptable to division and change. This type was perhaps the most difficult to compass, for every aspect of economy must be borne in mind. There could be no expensive bargains about ancient lights, no expensive land given up for columns and recesses, no waste of floor space, every bit of which must have good daylight. Mere floor space in a building was valueless unless it was lettable, and to be lettable must be lit. The most successful building owner was the one who took the free gift of daylight, protected it from the weather, and turned it into a commodity by combining it with his floor space to let or to sell by the foot.

New Type Developing.—The economic consideration of these factors was developing a type of building with distinct characteristics that derived from stark economy of money and distribution of daylight, hampered in the latter respect by the limitations imposed by the Building Act. These limitations were

imposed to ensure the stability of brick and stone walls before the advent of steel-framed structures, wherein the size of window openings had little more relation to stability than that required to resist wind pressure.

Combination of Category.—A complication was that sometimes a building had to combine the functions of the first of the three types named above, that was, where the client was building for his own occupation, with that of the third, where the surplus space was intended to earn sufficient to convert a partly uneconomic proposition into an economic one. This complication was not merely one of finance but of scale as between the high voids of the ground story and the lower voids between the upper shelves or floors of the dividend-earning portions. Freshness of design—he did not call it modernism—might serve where the academic manner broke down owing to violent change of function and change of scale in the two parts of the building. And, too, there were the newer methods of construction which were gradually learning to express themselves as gracefully and certainly more lightly than the more ancient methods were able to do. He might be wrong, but he had a sorrowful idea that some of our newer buildings were already out of date in manner and proportion, not because the so-called "modernism" was more than a fashion, or had come to stay, but because these buildings carried outworn clothing on forms and skeletons it was never meant for.

London County Council.—Not the least part of an architect's work in City, as in other London, buildings was the extended and difficult negotiations with the London County Council in most cases of waiver under the Building Act. In every case such as he was considering, plans had to be deposited with the Council for their approval of means of escape. By the courtesy of the Council officials, one might be enabled to make arrangements in advance that would ensure plans being passed when the application was made. If, by careful study and knowledge of the Building Act, one could by any means design a building so as to render any other application unnecessary, his advice was to do so, on the ground that waivers were expensive luxuries by reason of onerous conditions of consent, often costly to carry out.

Balance.—It was necessary in plan to balance floor space with lighting areas and in section to balance floor heights with the depths of blocks and in elevation to conserve and distribute daylight with as little shadow obstruction as possible Generally speaking, the area of the lighting wells on the upper floors should not exceed about 40 per cent. of the site area.

Older Types of Office.—In the days before lifts were common, office buildings usually consisted of lower ground story with forecourts, ground story and three or four floors over. These often had central corridors with branching corridors opening off in either hand, the rooms in these branch blocks being lighted from small areas. The suites consisted of two, three or more rooms ready made and with internal communication, each room having its own fireplace entailing chimney-stacks at close intervals throughout the building.

Newer Types.—Modern lifts and low pressure hot-water heating systems rendered this type of building obsolete, the lifts enabling the buildings to be higher, and central heating eliminating the forest of chimney-stacks, with an incidental effect on the atmosphere. The building could be planned on simpler, more sweeping lines, the small areas giving place to fewer and larger ones that enabled the light to penetrate deeper into the higher buildings. The omission of the chimney-stacks allowed of unobstructed floor spaces that could be readily divisible by means of light partitions.

Staircases.—This modern kind of plan, however, called for greater ingenuity in the planning of the staircases, which should be devised so as to give access to as many potential suites of offices as possible and allow for the provision of connecting corridors in case the exigencies of letting called for them. Whole floors might be let to one tenant who might have his own architect to scheme the offices on that floor with such internal communication as best suited the tenant's need. But other floors might have to be divided up by the landlord in unforeseen ways, so that it was best to try to visualise as many of those arrangements beforehand and scheme staircases and landings accordingly. The general lavatories must also be considered in relation to the staircases as, except in special cases, this was a service provided by the landlord and should be available to all parts of the house. It would be seen from this that there was a tendency to eliminate horizontal public corridors and to make the staircase with its lifts a corridor connecting up the offices in a vertical direction. The horizontal corridors, if required at all, became letting space for which rent was obtainable whenever the tenancy was large enough to require a whole floor or so much of it as was not accessible from another staircase.

It must not be overlooked that the staircases and lifts were the highest parts of the building and should be so placed as not to interfere with neighbouring lights. If there were dull or dark spots on the plan, without high quality of daylight, these spots should be occupied by the staircases, which could be artificially lit. After this, if there must be dull spots it was as well to try to contrive that these should come in places of access or public spaces within offices adjacent to counters. It was advisable to conserve good daylight for working spaces.

Lavatories.—In dealing with the question of lavatories in a building for a client's own occupation, his requirements could be got by obtaining a schedule of his staff and working out the accommodation from that, and by allowing, on the client's information, for possible increase of staff in the two sexes. When dealing with a building to be let off in separate tenancies the problem was not so easy. In these cases one took out the whole floor area available for letting except space (usually in the basements) to be let as strong rooms and for archive purposes where staff in any number was not usually employed, allowing one person for each 60 feet super of area. This gave in a building of say 30,000 feet of letting space the number of occupants as 500. About one-third of these were likely to be women, but it was impossible to fix any proportion between the sexes accurately as the variation between firms was enormous. Having got the figures then of, say, 334 men and 166 women, one could use the scale set out by the Board of Education in its *Building Regulations for Secondary Schools.** This gave 4 per cent. of w.c.'s for males and 1 in 15 for the first hundred females and 5 per cent. above that number. In the case set out above, therefore, 14 w.c.'s would be required for men and 10 for women, or roughly in those proportions. In first-class offices he would be inclined to increase those numbers somewhat, and in all cases it would be necessary to provide one or two lavatories for principals in convenient places, two or three w.c.'s in each. Urinals should also be provided, but in this case the Board of Education scale was hardly suitable for office use. For each separate group of six or seven w.c.'s, he tried to get three urinals, and thought this was ample.

For lavatory basins the Board's scale was 5 per cent. up to 100 and 4 per cent. above that number for males, with 10 per cent. up to 100 and 5 per cent. above that number for females. This scale was rather high for office use and could well be reduced.

In the concluding part of his paper the lecturer dealt with various details of equipment, etc., such as water supply, tea kitchen and gas supply, electric supply, heating, house-keeping, maintenance, etc.

Plea for the Contractor.—In conclusion, the lecturer referred to the question of the architect's responsibility for the prompt issue of information to the contractors. The contractor, he said, was entitled to expect on the day he signed the contract not only copies of the full specification and the eighth-scale drawings, but half-inches and full-sizes of the masonry, half-inches and full-sizes of much of the joinery, copies of all sub-contractors' accepted tenders, and plans of piping and party wall awards, besides all information that might be available to enable him to lay his plans for completion from the first and to give him time to purchase in the best markets. This might sound Utopian to many, but it was by no means impossible, and enabled the job to run sweetly for everybody from the client downwards.

*H.M. Stationery Office, 1920. 2½d.

Lt.-Col. W. G. Johns (joint general manager, Lloyds Bank), proposing a vote of thanks to the lecturer, said he agreed that good light in a building was to be preferred to the 5 ft. or 6 ft. diameter columns to which the lecturer had referred. It was surprising to a layman to hear that 40 per cent. of a site area had to be given over to light wells. With regard to heating, in his experience ceiling panel heating was preferable to radiators, and he had found oil heating the cheapest, because the wages of one or two attendants could thereby be saved.

Mr. Robert Howden (of Johannesburg), seconding the motion, said the paper to which they had listened was the kind that would give a useful lead to architects in South Africa. Sir Herbert Baker had evolved in South Africa from the Dutch Cape architecture a type of building eminently suitable for domestic work; but they had no tradition for city buildings, and looked to London for a lead in that direction. With regard to the question of adjoining owners, in the Colonies they had no such thing as rights of light, and he thought it would be a good thing in this country if Parliament could pass an Act of Appropriation, so that by means of compensation all such rights could be eliminated.

Mr. H. Austen Hall said the paper to which they had listened was one of the most solid and valuable that they had had in that room. Mr. Sullivan was a pupil of Alfred Waterhouse, one of the finest planners the country had had, and they saw in the work of Mr. Sullivan the evidence of his early training. With regard to rights of light, it was extraordinary that, while the rest of the world was free from this intolerable nuisance, we should still have to satisfy those who thought they might be injured by what we proposed to do. He saw no chance, however, of the remedy suggested by the preceding speaker being put into operation.

Lieut.-General Sir Louis Vaughan having supported the motion,

Mr. A. E. L. Slazenger said in a certain new building it had been decided to heat by electricity and thus do away with chimneys and fireplaces. One could regulate electrical heat to a degree. With regard to ancient lights, there was a certain amount of equity with it, and in instances he had known difficulties had been settled without friction.

Mr. A. Foster, having put in a plea for the control of elevations

Mr. Howard Robertson said Mr. Sullivan in his office buildings had made a definite contribution to the design of structures of that class. He was not only a practical man but an artist. To design an office building in the City and make it interesting, as Mr. Sullivan had done, was a very difficult feat.

Mr. Horace C. N. Farquharson, having drawn attention to some drawbacks of oil fuel.

Mr. Arthur J. Davis referred to the difficulty of excluding noise from City buildings, and said this had been largely overcome in a building with which he had been associated by having double windows, which were never opened except for cleaning. The building was ventilated artificially. They had thus reduced the noise, and the air was fairly pure even on the foggiest day.

Professor E. G. Pearce, having contrasted building conditions in this country with those of Canada and the United States, much to the advantage of the latter,

Mr. Sullivan briefly replied.

THE BUILDING CENTRE

In view of the interest now being taken in building matters by the public some observations on a new enterprise formed with the object of assisting the architectural profession and the building industry will be of interest to our readers. We refer to the new Building Centre, which is to be opened shortly at 158, New Bond-street, and to which we have previously referred in our columns.

One advantage which should accrue to the building industry from facilities granted to the public for access to this exhibition should be the knowledge gained of new materials and new methods of building, besides all the latest possible ideas in equipment for any type of building. One can imagine the desire being awakened in many, when seeing a comprehensive show of new materials and up-to-date articles of equipment, to build or add extra comforts to the existing building which they occupy. Such a natural desire, with the possibility of its being gratified made obvious, should tend to create a certain building-consciousness and help to give stimulus to building generally.

Such an organisation should be controlled by architects, as it is, who personally can gain nothing from their association with it. Obviously an enterprise of this kind, in order that it should be reliable and effective, must be in the hands of disinterested parties to whom there is no inducement either way to favour one material more than another, except on account of its superiority. Control by a group of people actually engaged in the manufacture or marketing of building materials might lay the scheme open to the suspicion that the controlling persons would be definitely influenced from financial and other reasons towards the exploiting of the scheme for the benefit of their own particular firms and the materials manufactured by them. The names associated with the directorate of the Building Centre are sufficient guarantee in themselves that nothing of this kind can happen, and that a fair consideration will be given to everyone exhibiting in the Centre.

Under the guidance of the directors, together with the assistance of the Advisory Board, which contains the names of many of the best-known architects of the country, the Centre should do much towards the improvement of industrial design if manufacturers are willing to take advice on æsthetic matters and the requirements of the architect as a whole for present-day design. This close association of the architect with the manufacturers for the building industry should have the most beneficial results not only by making the manufacturers acquainted with the ideas and requirements of the architect, but also by bringing home to the architects some of the difficulties with which manufacturers have to contend.

If the Building Centre were to do nothing more than establish a good standard of industrial design in the world of building materials and building equipment, it would have justified its existence. The need for such improvement is emphasised very definitely in the Gorrell Report recently issued; and in this connection it is interesting to note that the Building Centre has anticipated many of the recommendations contained in the report. In the Building Centre we have just such an exhibition as that which the Gorrell Report recommends as an aid to industry and the capturing of foreign trade.

The recent announcement that amongst its other activities the new Building Centre is to organise periodical popular tours round London for the purpose of showing the public new buildings suggests all sorts of possibilities. It will, indeed, be a novel thing, if these tours are successful, and we see no reason why they should not be, to find the British public taking as great an interest in its new buildings as in its old.

The Building Bureau in Berlin has for the last year or so arranged similar tours to those now proposed, through the streets of Berlin and round the outer suburbs, and has gone so far as to issue a map of the city and suburbs with all the new buildings of any interest marked upon it, with a list of their names and the names of their architects. It will certainly be a good thing both for the architectural profession and the building industry generally, if in England a public interest can be stimulated in buildings of to-day.

A public educated sufficiently to appreciate not only the difference between good architecture and bad, but also good building and bad building, good materials and bad materials, would be a great asset to the building industry generally.

Obviously, tours of the kind to be arranged by the Building Centre, even though conducted by expert guides, can do little more than arouse an interest in modern building and to an extent familiarise the public with present-day building materials and methods; but it will be at the Centre itself that they will be able to familiarise themselves more completely with such everyday things as, for instance, the wide range and variety of bricks which, at present, they hardly know exist, to say nothing of the constant flow of new materials, methods of lighting, heating, sanitation, and so on.

It may be argued that a little knowledge is a dangerous thing, especially in building; and we all know the quite legitimate complaint of the architect who suffers from a client who has been caught up by some cheap contraption at an exhibition and insists upon its being used, often with disastrous results, in his or her new building. It would seem that in the New Bond-street Centre this danger should be eliminated, because while it appears that the Centre will not be prepared to give a guarantee of efficiency with everything exhibited, at least every expert endeavour will be made to ensure that nothing of doubtful merit will find a place there. The fact, too, that the Building Research Station, at Watford, is to a certain extent co-operating with the new Centre, and is being provided with a space to show the results of some of its experiments on materials at Watford, should help considerably to draw attention to the danger of using bad materials.

It is satisfactory to know that the scheme has been organised by architects and given the approval of the R.I.B.A. and the Architectural Association, which has merged its Materials Bureau into the new venture. The architects engaged in the organisation of the Centre include Mr. Maurice E. Webb, Mr. Robert Atkinson, Mr. L. H. Bucknell, Mr. E. Guy Dawber, Mr. Louis de Soissons, Mr. G. Grey Wornum and Mr. F. R. Yerbury, who are to be congratulated on their public-spirited work.

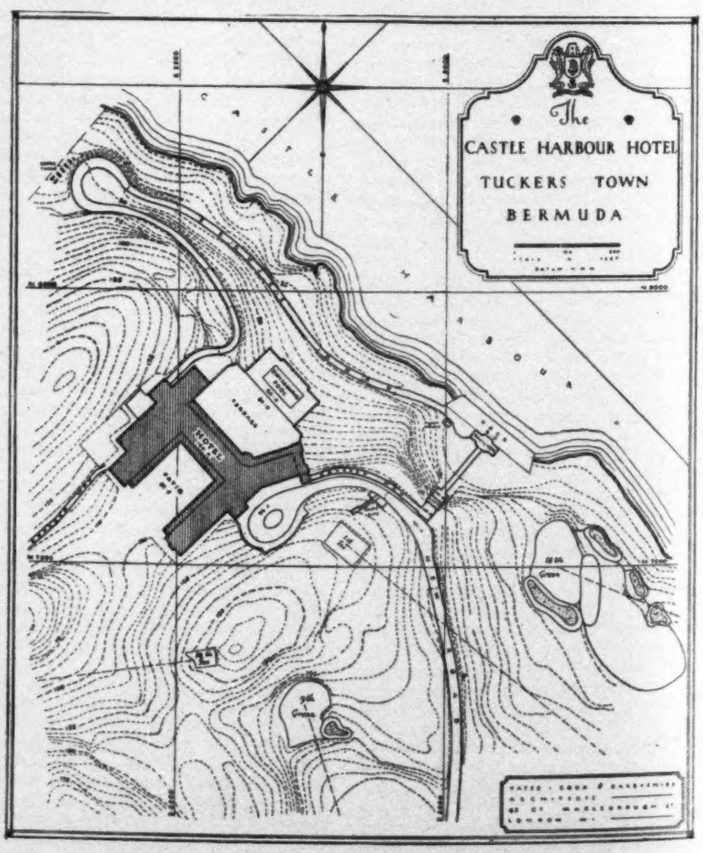
MUNICIPAL LOAN CHARGES.

Mr. Roberts asked the Minister of Health in the House of Commons recently whether, in view of the fact that in some cases under section 26 of the Housing Act of 1930 charges incurred during the construction of houses, such as loan charges on the land and interest on money paid to building contractors, were being disallowed in arriving at the ultimate capital cost of the houses, he would make it clear to local government auditors that such charges during construction must be taken into account.

Sir E. Hilton Young said that there was no authority for the payment out of moneys raised under loans sanctioned for the purposes of the Housing Act, 1930, of charges in respect of interest and repayment of capital.

Sir Cooper Rawson asked for particulars of the loans at present sanctioned and applied for, respectively, in connection with housing.

Sir E. Hilton Young said that the total amount of loans sanctioned for housing purposes in England and Wales since the war was approximately £571,000,000. No precise figures of the amount of borrowing involved by the various proposals before his Department could be given, but the average amount of loans sanctioned for housing purposes in England and Wales in each of the first four months of this year was approximately £1,211,500.



MESSRS. YATES, COOK & DARBYSHIRE, IN COLLABORATION WITH MESSRS. MAYERS, MURRAY & PHILIP, Architects.

ARCHITECT OR ENGINEER?

A DEBATE was held on May 26 at the Women's Service Hall, 46, Tufton-street, S.W.1, under the auspices of the Junior Council Debating Society of the London and National Association for Women's Service, the chair being occupied by Miss S. Lister. The debate was opened by Mr. H. B. Creswell, F.R.I.B.A., who moved that "The displacement of the architect and craftsman by the engineer and industrial worker is much to be deplored." Mr. R. A. Duncan, A.R.I.B.A., was the opposer of the motion.

Mr. Creswell said that fortunately for his audience the subject was not particularly a technical one, but rather part of a much more general field, namely, the commercialisation and industrialisation of social life, and it was with that the engineer was associated. Civilisation was not change but redemption from barbarity to the arts and refinements of life, so that a condition of affairs that made money the ultimate measure of human achievement could only be inimical to civilisation. But it was only fair to say that civilisation supported by the engineer had brought many obvious advantages; to it they owed roads, drainage, water supply, electric light, etc.; and, in addition, commercial enterprise supplied their needs before those needs arose. No sooner did any disease become recognised as incurable than commerce offered a large number of 1s. 3d. infallible cures for it. But it was difficult fully to assess the advantages which civilisation enjoyed from the activities of commercial enterprise. For instance, commerce could distinguish between leather and real leather, cut-glass and genuine cut-glass, English apples and bona-fide English apples, which was a thing he and most of his audience were quite unable to do. In all those matters the engineer was the devoted servant of the commercial man, but the particular matter which he had to speak of was the engineer's influence on architecture.

The difference between the architect and the engineer was that the architect employed empirical methods and the engineer scientific methods. The engineer as a scientific exponent only came into existence after the middle of the eighteenth century, whereas the whole mass of ancient and mediæval architecture was only arrived at by the empirical method of building, and that method was still almost exclusively employed by architects. It was quite a mistake to suppose that the achievements of the engineers were structurally as remarkable as those of the builders of the past. No engineer, for instance, could attempt to design such a building as Beauvais Cathedral, and the engineer's dome, which was constructed of an umbrella of steel plastered all over like a pie-crust with concrete, was a contemptible device compared with the domes built in the past by the empirical method.

Architecture, contended the lecturer, was being made impossible by the machinations of the engineer. It was a common mistake to suppose that the machine could do things more perfectly than they could be done by hand. Billiard balls, he had been informed, had to be finished by hand; all fine work such as the making of astronomical lenses could only be done by hand, and if the engineer wanted to make two cast-iron plates of a planing machine perfectly true so that they would slide over one another, the work had to be finished by hand after the machine had done its best upon it. The intrusion of the engineer in what might be called mechanical and constructional achievement was, however, a small matter beside the harm done by him to the crafts. To him was chiefly to be attributed what Mr. L. P. Jacks had called "the disenfranchisement of the hand." In this the engineer had been instrumental in robbing man of his birthright, for the aspiration to make things and to make things beautiful was fundamental in human nature, and was the most impressive attribute of humanity through all history. The commercial man with the assistance of the engineer had put the craftsman into his pocket, and architecture—the architect in his true province being the master of craftsmen—was the last stronghold of craftsmanship. If the engineer displaced the architect in the design and erection of building operations, that last stronghold would fall as others had fallen.

Mr. R. A. Duncan asked: "What is an architect?" The Greek architectron, as the word signified, was the chief constructor in charge of the materials and labour, responsible for costs and the mechanical side of the work, the sculptor being undoubtedly the most important person on the art side. The Roman architect was what we should now more generally recognise as an engineer. All architects must prove themselves engineers in some degree and all civil engineers architects. Rennie was an engineering genius, but he was also a good architect, as Waterloo Bridge bore witness. The architect and craftsman had not been displaced, nor would he be if he proved himself capable of handling modern processes and materials.

Engineering or technology, which was the practical application of science, had made the most astonishing advances during the last 100 years; there had been nothing comparable in man's history. The artist and architect had not seized corresponding advantages; he had not made any comparable progress; he had been too enmeshed in the toils of tradition. It was to the speaker's mind merely laughable that so many of them turned round and deplored the existence of means and facilities such as the world had never known before, when they should be deploring their own failure to make good use of the opportunities afforded. Where was the progress in the building industry as compared with, say, the astonishing achievements of the motor industry since 1900, achievements not solely confined to practical considerations but also in appearances? Had houses become comparably cheap, convenient and up to date? To-day it was uneconomic to house 25 per cent. of our people, building was too dear because the industry still relied on obsolete hand-processes for production to no conceivable advantage either for the job or the worker; for the latter their productive capacity was thereby restricted, and consequently their pay was low. As regarded the consumers, in the twentieth century they were still putting up with spurious imitations of the buildings of the sixteenth, and made up in sentimentality what they lacked in artistic judgment. Pathetic and futile attempts at individualism were made to serve when boldly conceived communal efforts on a grand scale could solve our building problems. Building was still a handicraft process, and as long as it continued to be so and to be looked upon as such it would continue to show increasingly disproportionate costs compared to other commodities. Little short of a complete revolution in the building industry could produce the required economic results. Such a revolution in the building industry could not come about in the absence of encouragement or without at least tacit consent on the part of the consumer of houses, for one half of all building was domestic, and therefore developments were held back on account of public taste.

In declining to make use of the mechanical side of our age and modern processes we were not only denying ourselves much that we might enjoy but depriving millions of fellow-human beings of the essentials of a decent existence. Deplore the engineer, indeed! Rather should we welcome his aid. There was one fact that was vital to the discussion, viz., that whereas the population of Great Britain in the eighteenth century was about 6,000,000, it was now 45,000,000. So far from demanding a curtailment of the activities of the engineer and his co-workers in their practical interpretation of scientific knowledge, we should be grateful, for to them we largely owed the fact that we were not in a half-starved condition, living in dirt and squalor, and that the masses of the people enjoyed a standard of living considerably in advance of anything the world had ever seen before. It was to be eternally regretted that the designers and craftsmen of the nineteenth century did not really grasp the significance of what was happening and seize the opportunities offered by technical development.

Mr. Creswell had stated that the empirical method was the method which had guided all previous states of society. The speaker said he agreed, but whereas those previous civilisations had been wholly empirical, that would not serve the entirely different and complex civilisation now dawning. We were at the beginnings of an entirely new era, not a relatively simple change such as from Mediæval to Renaissance, but one of the major changes in the life of mankind, for we were now evolving from an empirical civilisation based on agriculture economically to a scientific one based on industry. The empirical method, which was now often another name for the fortuitous, the accidental and casual, must give way to reason and planning, because it could no longer serve.

Miss Elisabeth Scott, A.R.I.B.A., said that she agreed with Mr. Duncan that it was hardly true to say that architects had been displaced by engineers, although she did think that architects to-day had quite a new problem set them by engineering discoveries, and she thought it was essential for them, as architects, to face those new problems and design their buildings accordingly. The scientific discoveries in building had set architects many new problems inside as well as outside the building, and she thought that if the good architect would take all those new conditions and use them in his design, he would arrive at very fine new effects which were different from the old ones.

Mr. A. J. Penty, L.R.I.B.A., asked whether they were to abandon tradition or not. Tradition was necessary to keep them straight; the moment a man threw overboard tradition he went to pieces, he could not keep straight. All this engineering business was tied up with modern civilisation. Modern civilisation was a disease, and this disease was coming to an end. The modernist was always ready to experiment, and generally he knew nothing whatever about what he was experimenting with. He, however, believed that the old building materials would be the ones that would survive.

After a further brief discussion had taken place, Mr. Creswell replied to points that had been raised during the discussion. The motion was then put to the vote and carried by 26 votes to 21.

INSTITUTION OF STRUCTURAL ENGINEERS.

THE result of the elections of Officers and Council of the Institution of Structural Engineers for the session 1932-1933 is as follows:—

President: Major E. C. P. Monson, T.D., F.R.I.B.A.

Vice-Presidents: Mr. A. H. S. Waters, M.Inst.C.E., M.I.Mech.E., Mr. Ewart S. Andrews, B.Sc., M.Inst.C.E., Mr. J. T. Saunders, F.R.I.B.A., Lt.-Col. C. H. Fox, O.B.E., B.Sc., F.S.I.

Hon. Secretary: Professor J. Husband, M.Eng., M.Inst.C.E.

Hon. Editor: Mr. H. R. Cox.

Hon. Librarian: Mr. A. J. Taylor, F.R.I.B.A.

Hon. Curator: Lt.-Col. H. S. Rogers, C.M.G., D.S.O.

The ordinary members of Council are:—Dr. Oscar Faber, O.B.E., M.Inst.C.E., Mr. C. J. Jackaman, A.M.Inst.C.E., Dr. H. Schofield, M.B.E., B.Sc., Mr. C. Mitchell, Mr. J. Stuart Lewis, Mr. J. F. Butler, A.C.G.I., A.M.Inst.C.E., Capt. M. B. Buxton, M.C., M.A., A.M.Inst.C.E., Mr. J. D. Stitt, Mr. E. Granter, B.Sc., A.M.Inst.C.E., Mr. G. McLean Gibson, O.B.E., M.I.Mech.E., A.M.Inst.C.E., Mr. H. J. Collins, M.C., M.Sc., A.M.Inst.C.E., A.M.I.Mech.E., Mr. A. Kirkwood Dodds, M.C., Mr. P. J. Black, L.R.I.B.A., Mr. W. F. Hutchinson, Mr. W. Douglass May, Mr. F. M. Easton, Mr. A. S. Lowe, M.C., B.Sc.

ILLUSTRATIONS

PLATES.

"Summer, 1851."

This is the second of a series of fantasies depicting the nineteenth century. The first, "Springtime, 1820," showed the costumes, methods of transport, and the general aspect of contemporary social conditions. The present fantasy attempts to embody the characteristics of the art of the Early Victorian period and to represent the chief event of 1851. The interior of the Great Exhibition and the leafy trees form the central motive. To the right is indicated the Houses of Parliament, and incidents particular to London. To the left there is an indication of St. George's Hall, the railway engine and other data. The illustration is from a large coloured drawing made with spontaneous freedom. The next of the series, "Autumn, 1885," will be published in September.

New Medical School and Pathological Institute, St. Mary's Hospital, W.

The medical school of this block of buildings in Paddington is now in course of erection by the contractors, Messrs. John Mowlem & Co., Ltd., under the management of Mr. H. Whittaker. The materials used are Dorking bricks, with Portland stone dressings. At a later date, when the building is completed, we hope to illustrate it fully, at which time plans and full details will be given. Sir Edwin Cooper, A.R.A., is the architect. The original of this reproduction hangs in the architectural room at the Royal Academy.

Castle Harbour Hotel, Bermuda.

In the Castle Harbour Hotel, Bermuda now possesses one of the most modern buildings of its kind, both in design and equipment. Care has been taken not only to provide efficient service and comfort for the ever-increasing tourist trade, but all the many attractions Bermuda has to offer her visitors have been included in the design of the hotel and the lay-out of the surrounding property.

The entrance hall has been planned to form a spacious rotunda with a domed ceiling brilliantly lighted with indirect lighting. This leads to a spacious lounge panelled in high Cuba mahogany panelling, with heavily beamed ceiling and Bermudian stone fireplace; whilst on the right is the reading room with its restrained modern decorations and walnut furnishings; to the left of the rotunda is the lift lobby and reception office.

Through the lounge we come to the large and tastefully decorated dining-room with tables for 500 diners. On the same floor is a well-appointed and equipped kitchen, with dumb waiters to serve all floors throughout the hotel. The lower main floor is similarly planned, its rotunda leading to the bar and Silver Grill Room, whilst on the south-east wing is an arcade of shops. The swimming-pool is approached from this floor across a formal garden terrace.

The upper floors are given over entirely to the residential side of the hotel, where 297 large bedrooms have been arranged on five floors, each room being provided with bath-room and closet. A number of rooms have been arranged in suites of various sizes, while the sixth and seventh floors have each a five-roomed suite. The seventh-floor suite is decorated in Tudor style.

The location of the site and its inaccessibility presented numerous difficulties, and the architects are to be congratulated on the successful solution to an unusual requirement. The hotel is approached by tender across the Castle Harbour to a private quay, where two large-capacity lifts convey the guests up the cliffs to a short covered walk leading to the hotel, 100 ft. above the harbour. This cliff presented one of the greatest difficulties in the construction of the work, as all building materials had to be conveyed from the quay-side to the hotel site over the cliff, and a seven-ton cable line conveyor had to be erected to overcome this difficulty.

The "Buy British" ideal played a big part in the construction of the hotel, the work having been entrusted to the Regent Construction Co., Ltd., who are to be congratulated on the successful completion of so large a contract to schedule time, the building operations occupying thirteen months. Practically all the labour employed on the work was British, the contractors sending out most of the labour required direct from England.

In construction the hotel introduced for the first time to Bermuda all that is modern in work of this class. The structure is steel-framed to withstand winds of hurricane force, and concrete floors have been used throughout. The whole of the external walls are built with a 4 in. cavity, the external face being constructed with the soft Bermudian limestone, which rapidly hardens as it weathers into many varied and delicate hues. Special care had to be exercised in waterproofing these external walls owing to the nature of this native stone.

The main roof and tower are finished with Westmorland green slates, while the flat roofs are finished with red tile pavors after special treatment had been given to ensure sound roofs. Beneath the garden terrace at lower main-floor level is housed a 500,000-gallon rainwater storage tank constructed of reinforced concrete throughout.

Messrs. Yates, Cook & Darbyshire, of 43, Great Marlborough-street, London, W., in collaboration with Messrs. Mayers, Murray & Philip, of New York, were the architects, the whole of the working drawings, details and supervising of building operations being carried out by the London firm.

Following is a list of firms associated with the work:—Allied Cement Manufacturers, Ltd., cement; James Armstrong and Co., Ltd., complete laundry equipment; Buck and Hickman, Ltd., tools, etc.; British Anti-Fouling Composition and Paint Co., Ltd., paint; John Bolding and Sons, Ltd., sanitary fittings; Babcock and Wilcox, Ltd., boilers; Bowley, Preece and Co., Ltd., Cotteridge, Birmingham, bathroom fitments; Benham and Sons, Ltd., heating installation, kitchen equipment, etc.; Best and Lloyd, Ltd., electric light fittings; Cement Marketing Co., Ltd., cement; Diespeker and Co., Ltd., terrazzo to swimming pool; Express Lift Co., Ltd., lifts; Fescol, Ltd., anti-corrosive treatment of metal casements, etc.; Gwynnes Pumps, Ltd., pumps; General Electric Co., Ltd., electrical equipment and fittings; J. and E. Hall, Dartford, Kent, refrigerating plant; Jenson and Nicholson, Ltd., paint; Korkoid Decorative Floors, Ltd., Glasgow, "Korkoid" flooring; London Sandblast Decorative Glass Works, Ltd., mirrors, etc.; Minton, Hollins and Co., Ltd., tiling; F. G. Minter, Ltd., joinery; Merryweather and Sons, Ltd., fire hydrants; Roanoid, Ltd., Glasgow, door furniture, etc.; Smeaton and Sons, Ltd., plumbing; Smith Walker, Ltd., steelwork; Scaffolding (Great Britain), Ltd., tubular scaffolding; Charles Smith and Co., Ltd., Birmingham, casements, flyscreens, locks, etc.; Starkie Gardner, Ltd., bronze entrance doors, decorative metalwork, etc.; Thermotank, Ltd., Glasgow, ventilation; Westmorland Green Slate Quarries, Ltd., Keswick-on-Derwentwater, roofing slates; Winget, Ltd., mixers, hoists, etc.; Hampton and Sons, Ltd., furniture, carpets, etc.; Newman and Co., Ltd., decorative and general plaster work; Compactom, Ltd., wardrobe equipment.

Bridlington Town Hall.

About eight years ago, the Bridlington Corporation, in view of the rapid growth of the borough and the consequent increase in the activities of the council, decided to erect larger and more up-to-date premises for the council and its staff, and acquired a site of about 4½ acres in the centre of the town. The old municipal buildings, which originally occupied the site, and consisted of a house erected over 100 years ago, and converted into offices, were demolished. The main front of the new building occupies a commanding site fronting the Rose Gardens, and the main approach to the premises along Quay-road from the direction of the sea front gives a view of the whole façade. The building has been designed in the Georgian style in red rustic bricks with reconstructed stone facings. It is set back from the road with gardens in front and a miniature golf course at the rear.

The new building contains seven main departments:—council suite, town clerk's, borough treasurer's, rating, health, borough architect's and borough engineer's. There is also a flat for the caretaker. The ante-room, which opens from the grand staircase, gives access to the council chamber and reception room. Cupboards for the members' robes are provided in the panelling of this room and lavatories for lady and gentlemen members are adjacent.

The council chamber is 56 ft. by 35 ft., and is richly panelled in Austrian oak with Ionic columns and entablature, above which is concealed lighting. A carved and enriched dais is provided for the mayor, deputy mayor and town clerk, opposite which is the public balcony, which accommodates seventy people. Access to this, from the first floor, in no way connects with the main chamber.

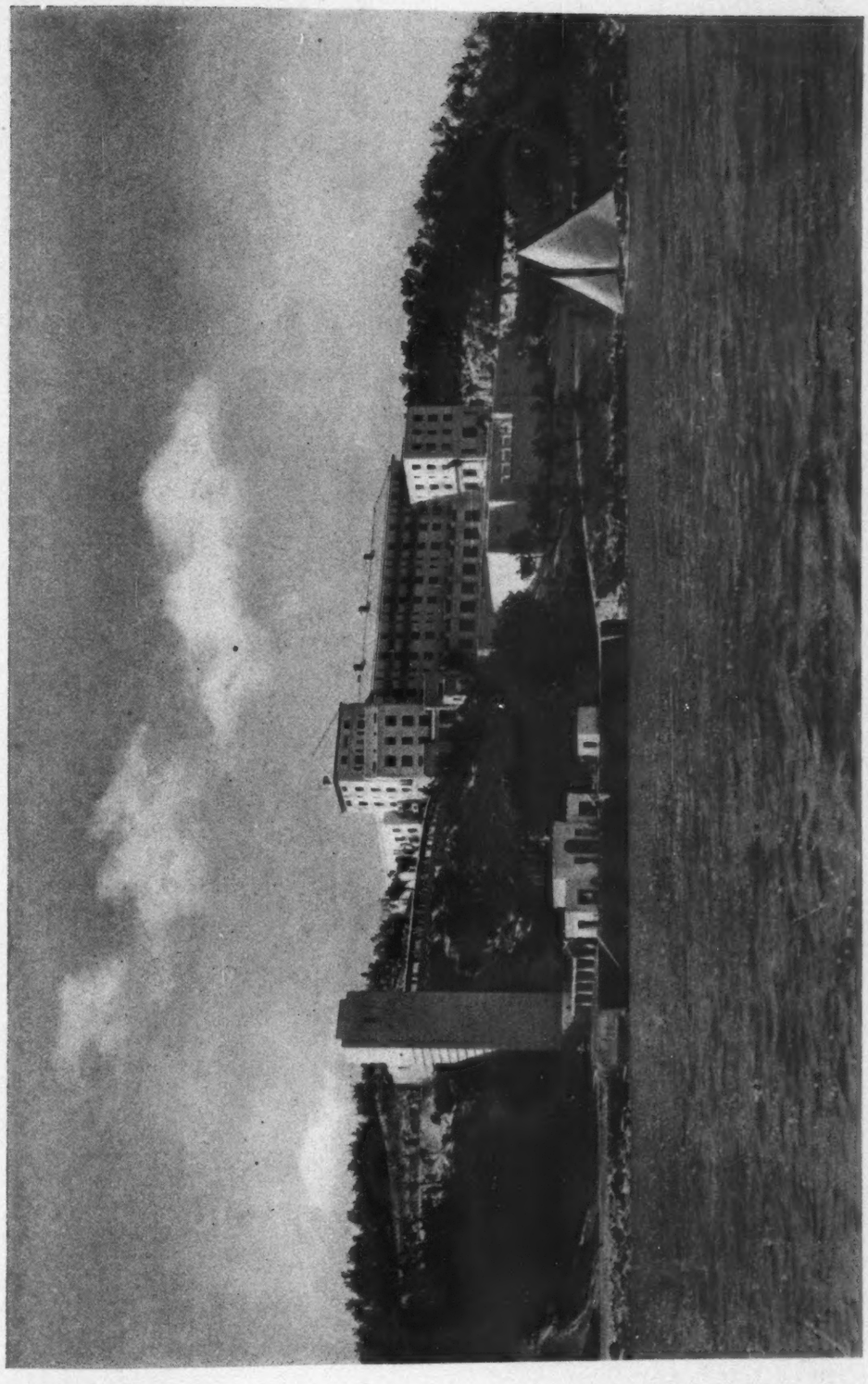
On the first floor are two large committee rooms and a retiring room for the members. The mayor's parlour occupies a central position over the main entrance, with French windows giving access to a balcony. Five offices are provided for the town clerk's department, with a room for the general inspector in addition. Five offices are allocated to the borough treasurer, and two to the rating officer and waterworks secretary. There is also a room for the valuation officer. Offices are provided for the medical officer and his secretary, two rooms for the sanitary inspectors, and a disinfectant laboratory. Five rooms are provided for the borough engineer, which include a long drawing office with north and top light, and a printing room. There are also three rooms for the borough architect's department.

A stone tower is a prominent feature of the building, and contains a clock with four dials, and Westminster chimes. This tower is floodlighted at night. The total estimated cost of the work is about £34,000.

The heating of the offices and corridors is by means of cast-iron "Rayrads" and similar panels of sheet steel; the council chamber and reception room being heated on the plenum system. The heating units are two Ideal "Britannia" boilers, oil fired and a separate boiler and circulating calorifier are provided for the domestic hot water.

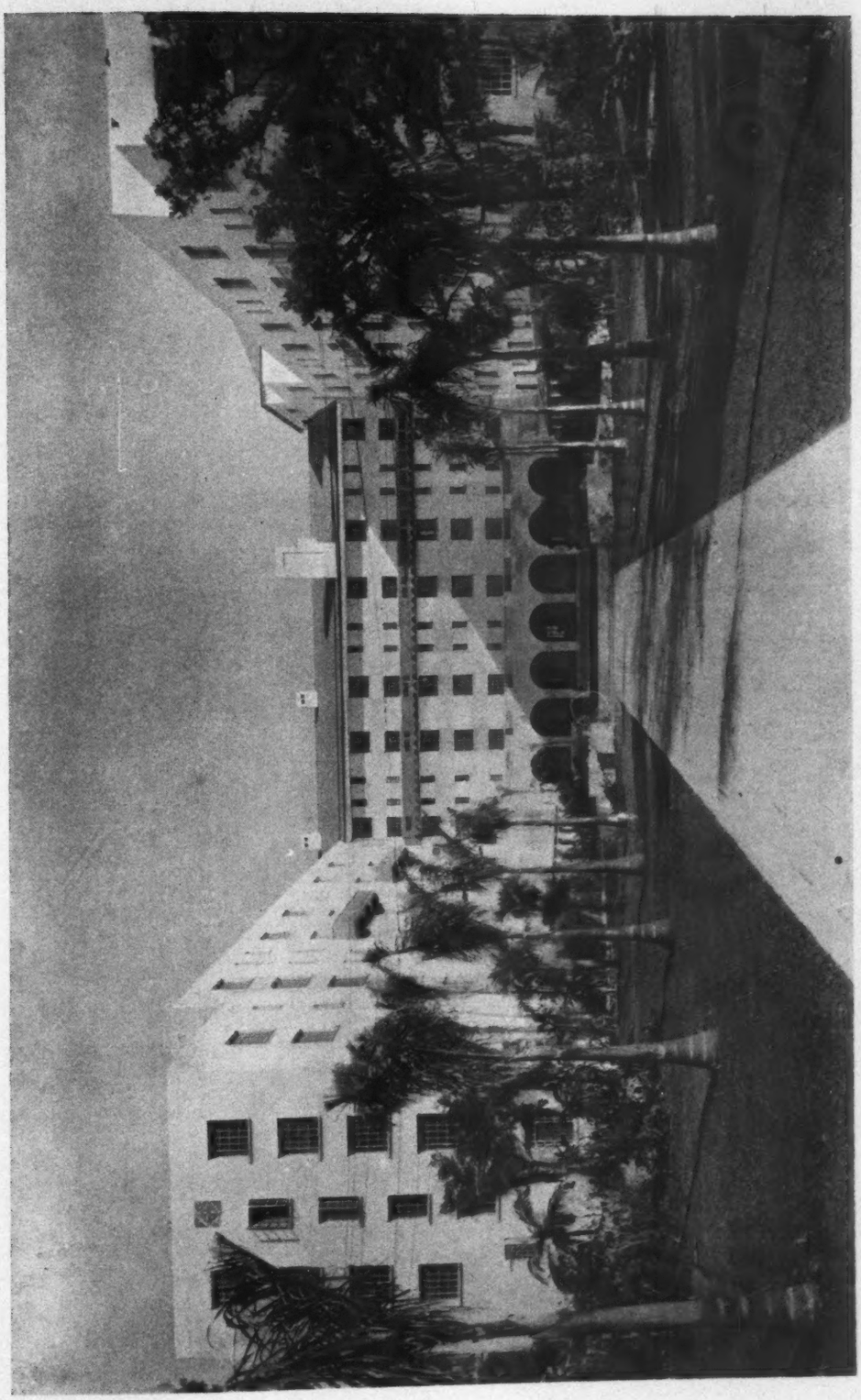
The work has been carried out so far as possible by local labour, the general contractors being Messrs. J. M. Smallwood and Sons, Bridlington. The following were sub-contractors:—W. and F. Usher, Bridlington, carpenter and joiner; Hull Concrete Stone Co., Hull, masons; King and Co., Hull, steel construction; Dawber, Townsley and Co., Bridlington, slater; E. Marsh, Bridlington, plumber; Doulton and Co., sanitary fittings; J. E. Garland, Bridlington, painter and decorator; A. J. Snelling and Co., Hull, heating and ventilation; G. H. Jarvis and Sons, Bridlington, electrical installation; T. B. Morley and Co., Hull, electric fittings; Bridlington Gas Co., gas fittings; Hall and Dixon, Ltd., panelling; J. W. Wilson and Son, Mansfield, fibrous plaster; Crossley and Sons, Middlesbrough, rustic facing bricks; Stubbs, Liverpool, marble; G. Toffolo, Hull, terrazzo; Gillett and Johnston, Ltd., Croydon, clock and bells; Northern Asphalt Co., Leeds, asphalt; Heliwell and Co., Brighouse, metal casements; Asbestos and Rubber Co., Hull, rubber floors; Hesketh and Ashton, Bridlington, bronze doors; R. Bailey and Son and Hesketh and Ashton, Bridlington, fireplaces; John Tann and Co., strongroom door; Goodalls, Ltd., Manchester, council chamber furniture; Bladons, Ltd., Hull, carpets and curtains; Harry Davis and Co., Ltd., Bridlington, mayor's parlour; Wm. Neal and Co., and Carlton's, Ltd., Bridlington, committee rooms and reception room.

(*Continued on page* 979.)



Castle Harbour Hotel, Tuckers Town, Bermuda : View from Harbour.

Messrs. Yates, Cook & Darbyshire, in collaboration with Messrs. Mayers, Murray & Philip, Architects.



Castle Harbour Hotel, Tuckers Town, Bermuda : Patio.

MESSRS. YATES, COOK & DARBYSHIRE, IN COLLABORATION WITH MESSRS. MAYERS, MURRAY & PHILIP, Architects.

R.A. Exhibition, 1932.

New Medical School and Pathological Institute, St. Ma

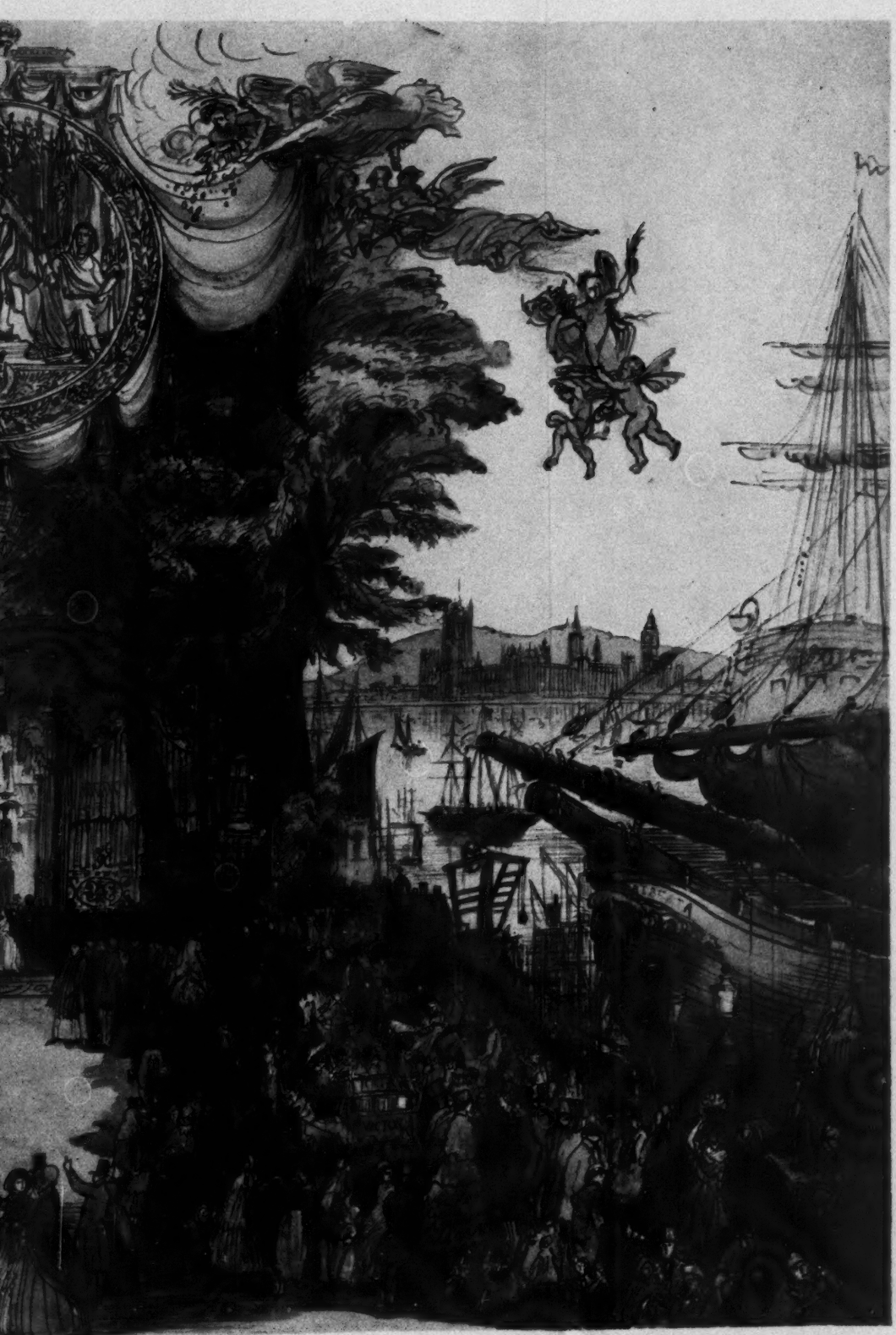
Sir Edwin Cooper, A.R.A., Architect

tute, St. Mary's Hospital, Paddington.

R.A., Architect.

"Summer, 1851."

From a drawing by PROFESSOR A. E. RICHA



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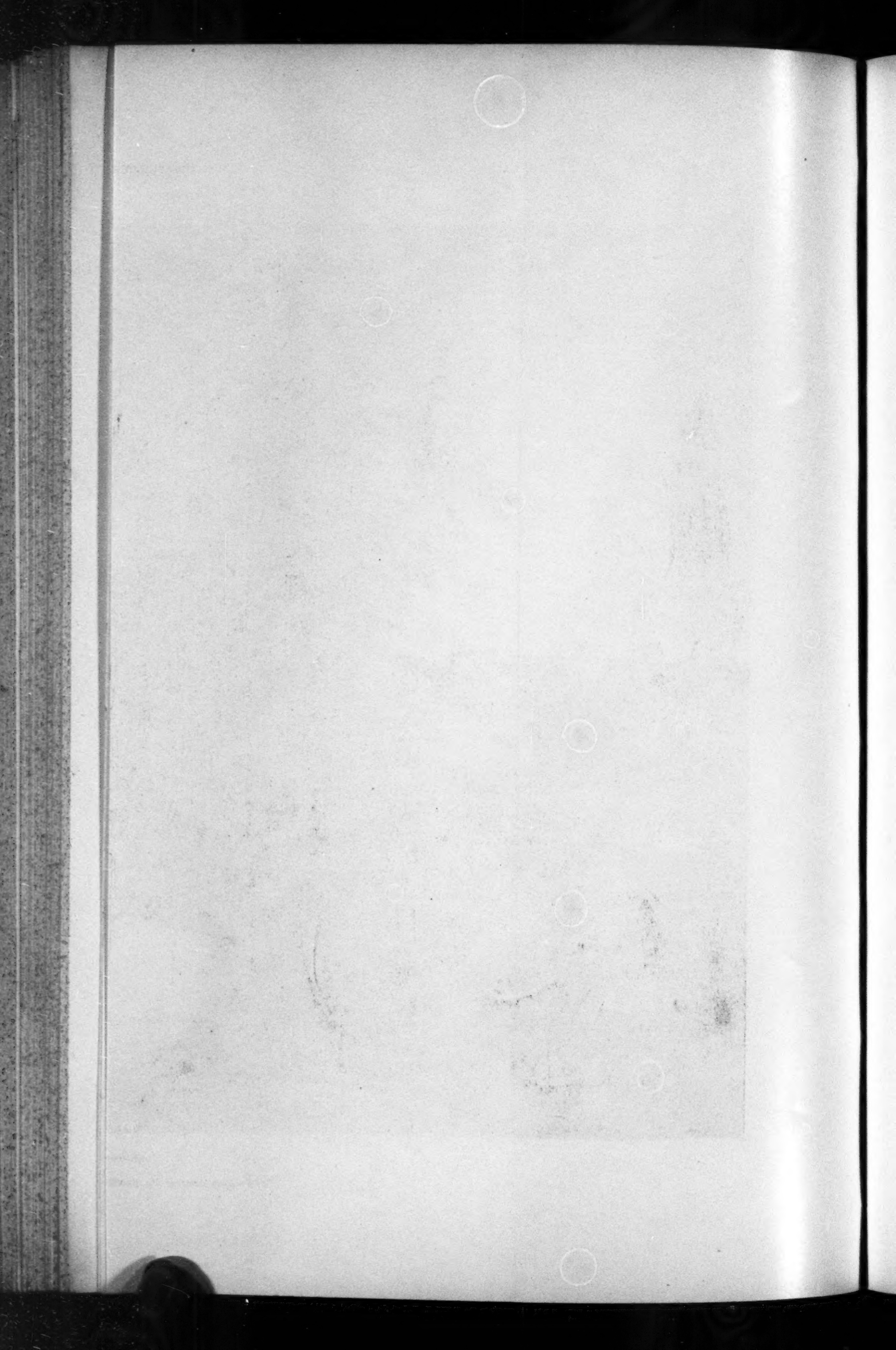
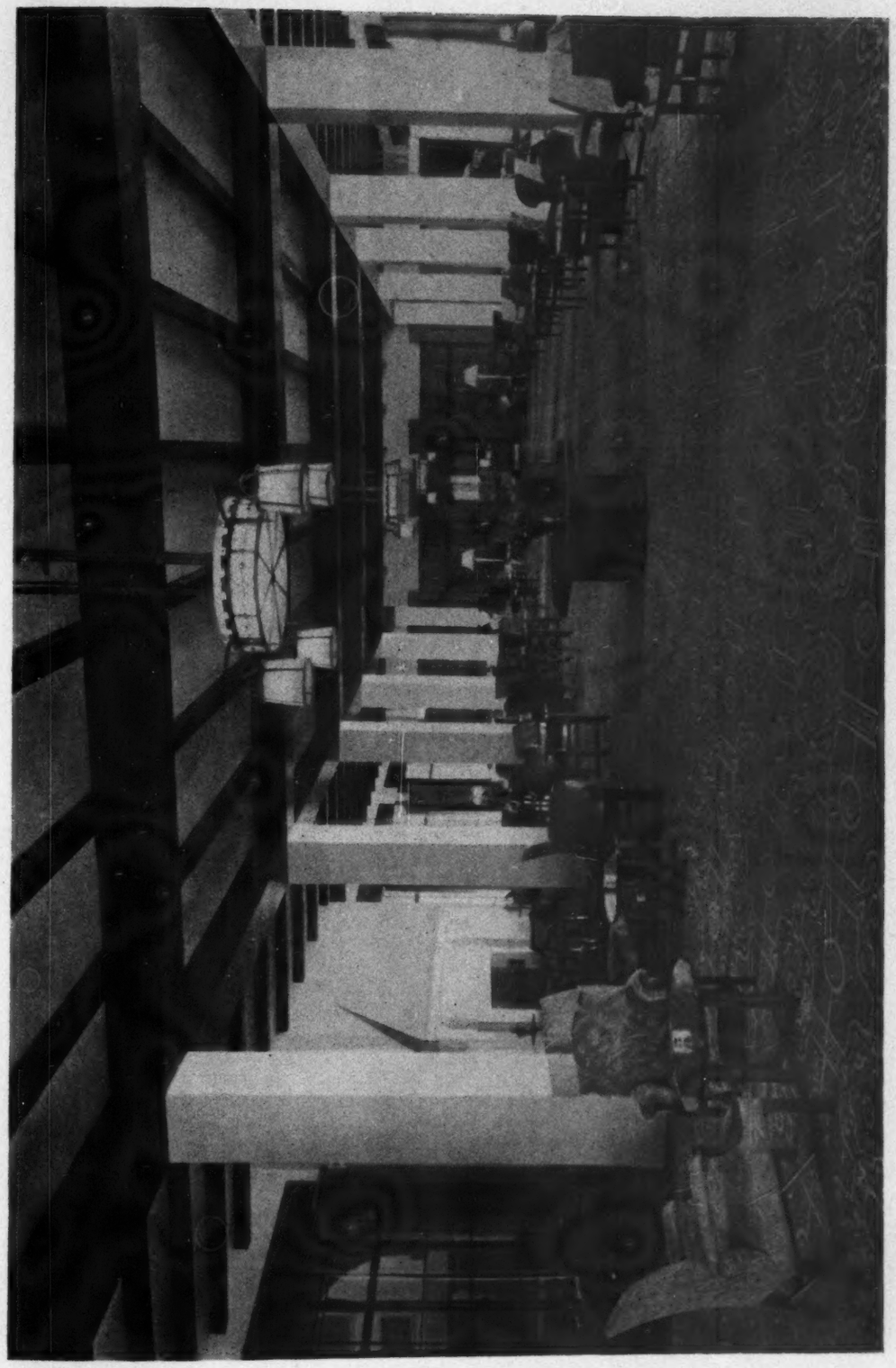
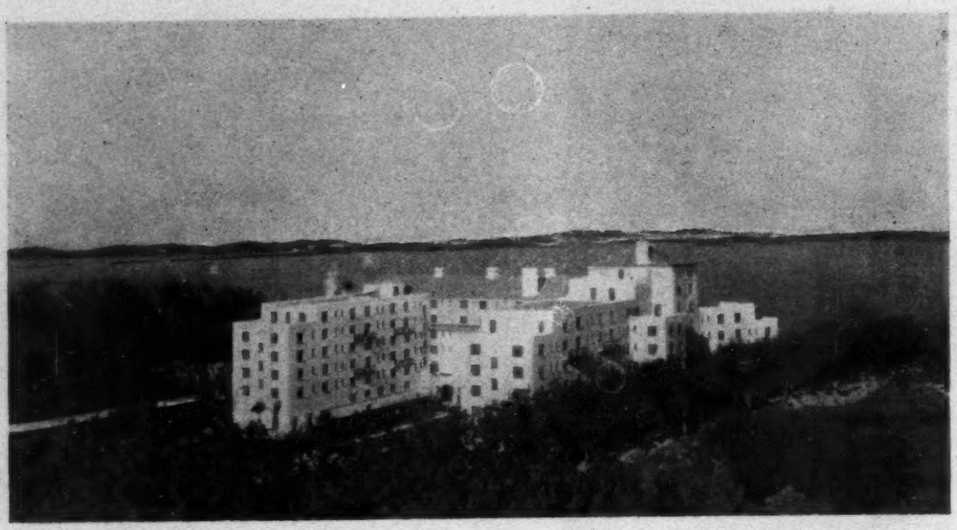
A. E. Richardson, F.S.A.



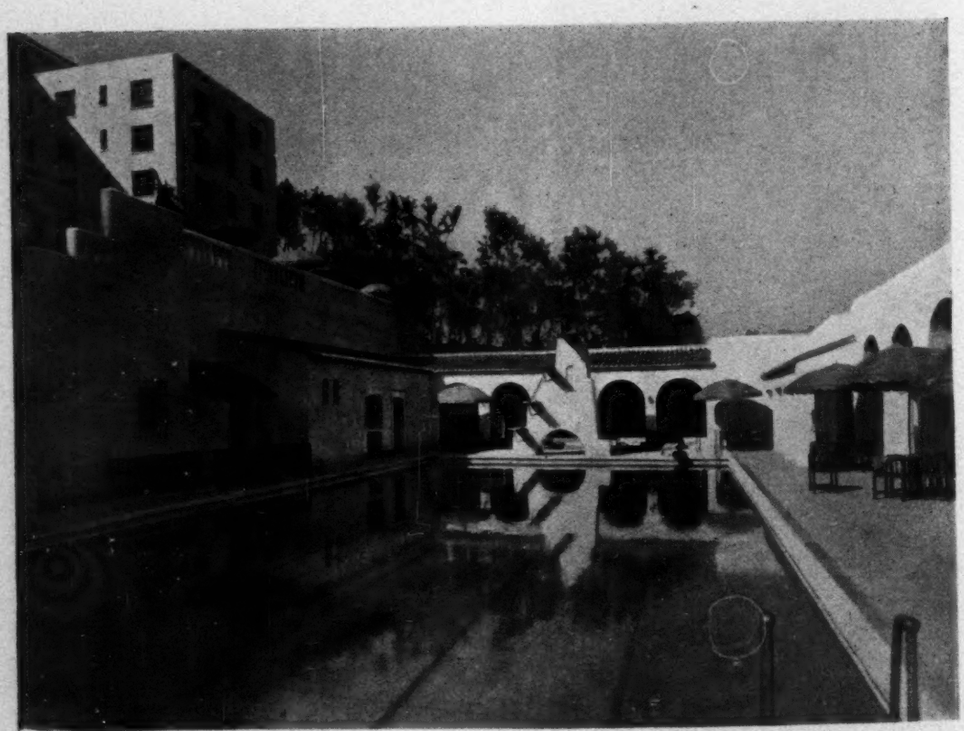


Castle Harbour Hotel, Tuckers Town, Bermuda: Main Lounge.

MESSRS. YATES, COOK & DARBYSHIRE, IN COLLABORATION WITH MESSRS. MAYERS, MURRAY & PHILIP, Architects.



General View from Golf Links.

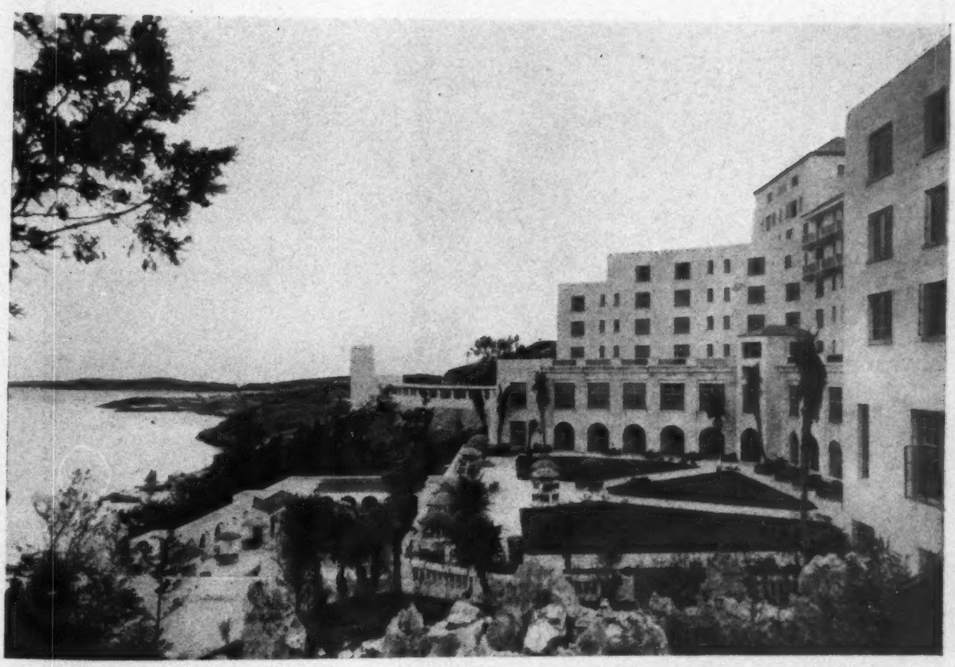


Swimming Pool.

Castle Harbour Hotel, Tuckers Town, Bermuda.

Messrs. Yates, Cook & Darbyshire, in collaboration with Messrs. Mayers, Murray & Philip, Architects.

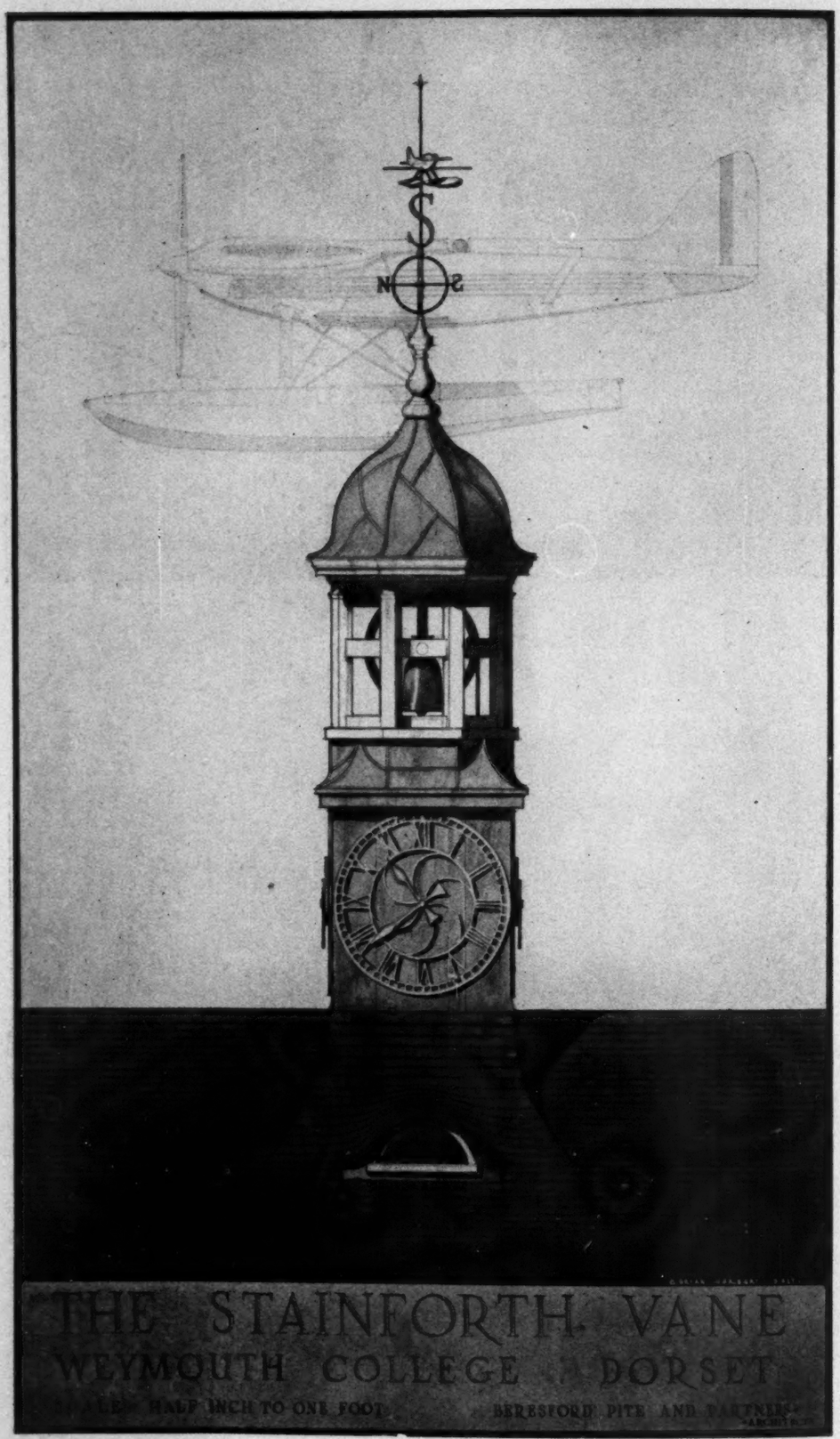
VIEW FROM COVERED WAY.



FRONT VIEW, SHOWING MAIN TERRACE, ETC.

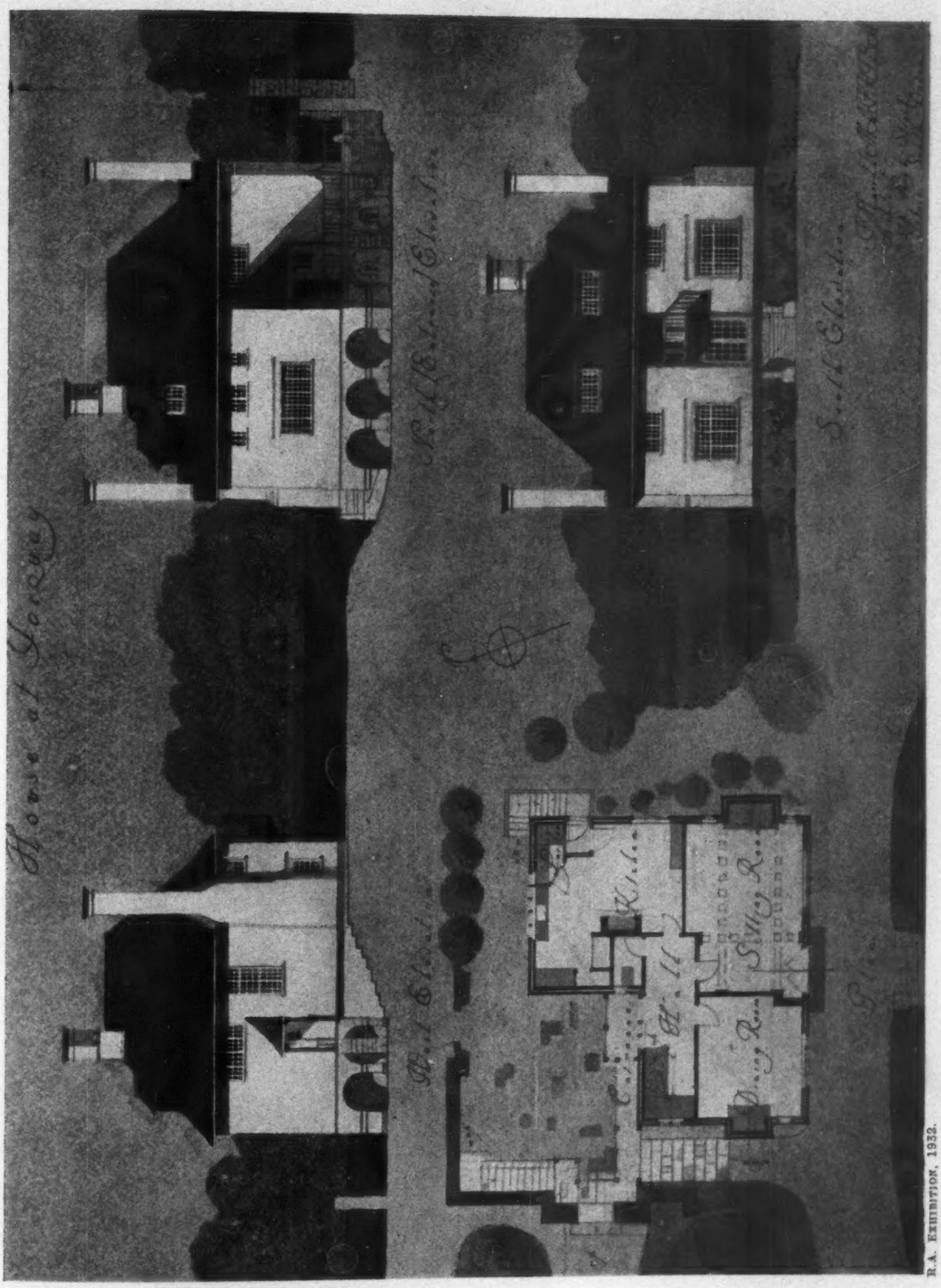
Castle Harbour Hotel, Tuckers Town, Bermuda.

MESSRS. YATES, COOK & DARBYSHIRE, IN COLLABORATION WITH MESSRS. MAYERS, MURRAY & PHILIP, Architects.



R.A. Exhibition, 1932.

Messrs. Beresford Pite & Partners, in collaboration with Messrs. Crickmay & Sons, Architects.



A House at Torquay.

Mr. Fred Harrild, M.A., F.R.I.B.A., Architect.

R.A. Exhibition, 1932.

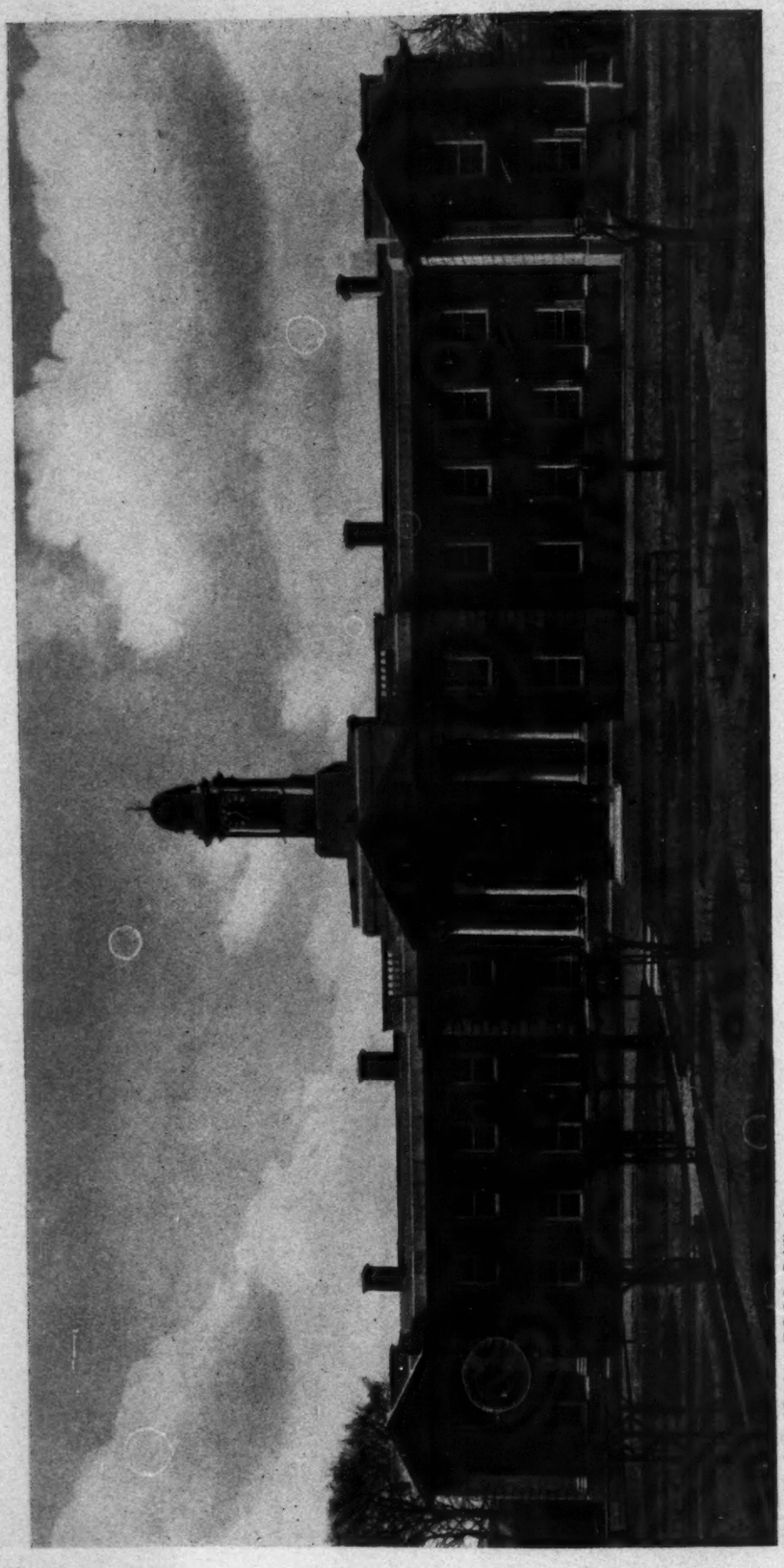
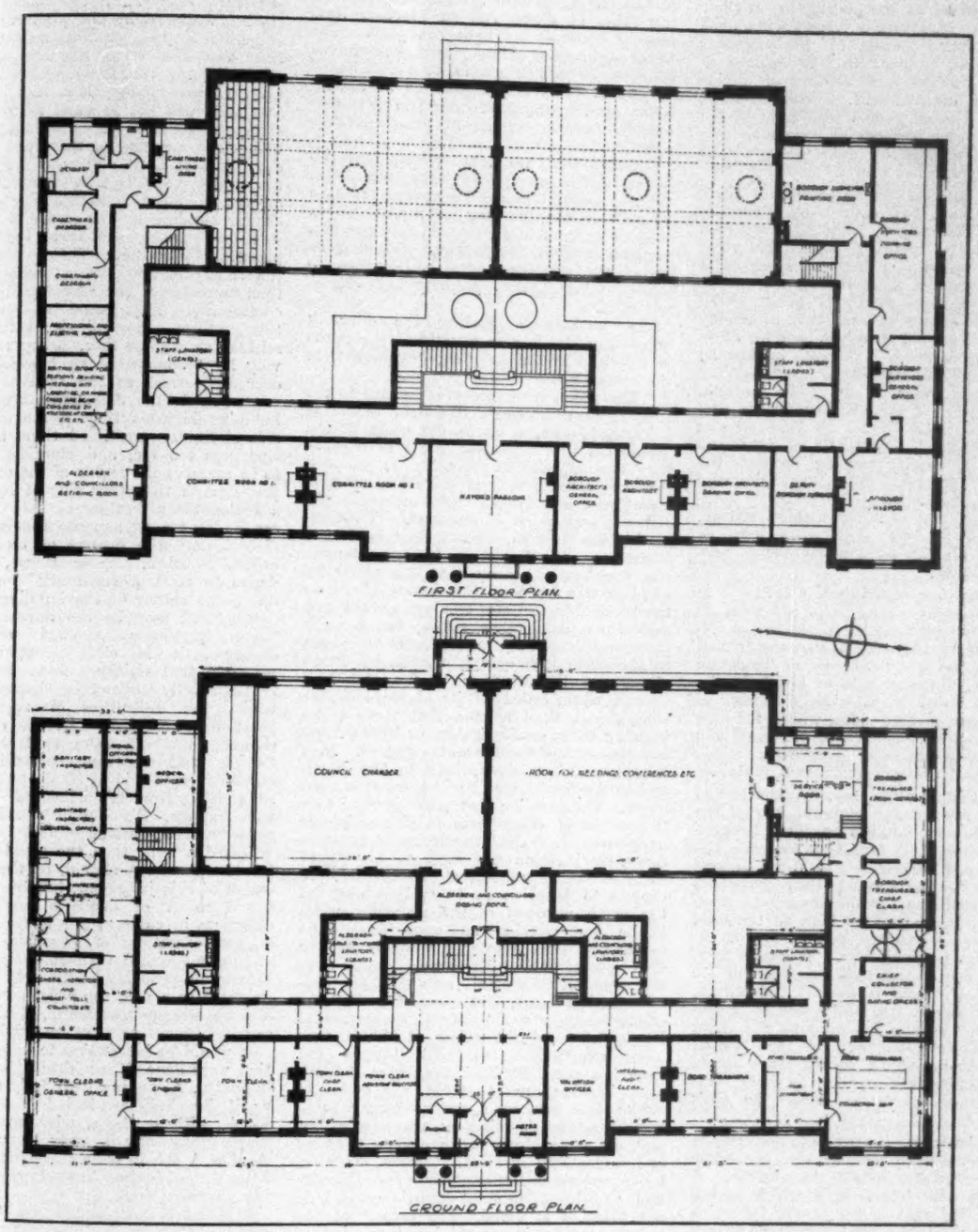


Photo: W. Foster Brigham, F.R.P.S., Bridlington.

Bridlington Town Hall.

MR. P. MAURICE NEWTON, A.R.I.B.A., Borough Architect.



Bridlington Town Hall.

MR. P. MAURICE NEWTON, A.R.I.B.A., Borough Architect.

NEW DECISION ON ANCIENT LIGHT LAW

SHEFFIELD MASONIC HALL CO., v. SHEFFIELD CORPORATION.

By PERCY J. WALDRAM, F.S.I.

Those who have listened from time to time to judicial comments on the anomalies and injustice involved by the Colls decision will not be surprised at the courageous attempt of Mr. Justice Maugham to place the law upon a more equitable footing by his judgment in this action, reported in *The Builder* of March 18. Experience alone will decide whether the decision will be considered as binding upon other judges who have in the past found other methods of combining substantial justice with the letter of the law as laid down by superior courts.

The Colls case created no new law. There had always been two main legal groups of opinion on the subject. The first regarded natural light to which a prescriptive right had been acquired as a property which could not be diminished without redress; whilst the second held that legal relief being, *prima facie*, that of restrictive injunction, could only be granted in respect of proven legal nuisance, the "horrid darkness" (*horrida tenebritate*) of the older legal authorities.

Immediately prior to the Colls decision, the first school of thought had mainly prevailed, and abuse under it had become almost a scandal. The House of Lords endeavoured to rectify this by deciding the Colls case (and, be it noted, the Colls case only) on the second dictum; probably without realising, and certainly without stating, that justice to both sides could only be attained in practice by a wisely elastic combination of both.

The main anomalous injustice involved in rigid application of the Colls judgment to all cases may perhaps be illustrated as follows. Assume that A is the owner and occupier of a dwelling-house of moderate height, say, three stories, or about 35 ft., in a street about 35 ft. wide, consisting of similar houses on both sides, which, for over 20 years, had all suffered that moderate and quite bearable degree of obstruction which permitted them to command normal rentals.

Assume that B owns, say, five houses and C another five on the opposite side of the street to A, and that the boundary between the properties of B and C is opposite the middle of A's house. B and C are minded to pull down and rebuild their properties for commercial uses. B decides upon a large block of offices carried as high as the local building regulations will permit, say, 80 ft. high on the frontage line. B builds first, completely obstructing half the aspect of A's windows. A's light is thereby reduced to, or possibly below, the border line of insufficiency. But because his windows still enjoy light from the other half of their aspect over C's old houses, A cannot prove actual nuisance sufficiently severe to give him material cause of action under the Colls decision.

A year later, C, having obtained vacant possession, starts to rebuild, say, one house to a rather greater height than before. A is still left with lateral light which he has an indefeasible right to defend, and for which he must under the legal authorities give credit. His house is rendered darker still, but the difference caused by a moderate raising of one house only may still be too small a loss for a prudent man to risk litigation upon it.

Later C decides to raise more of his houses. By this time A's legal loss has been whittled down. He has actually lost the difference between the value of a reasonably well-lit property and one which is distinctly gloomy; a wrong which, if committed in one operation, would have given him a clear case for injunction. But legally he can only plead the difference between a house materially darkened and one which will be badly darkened. As a result, instead of a practically certain injunction, he can probably only expect small damages, which may scarcely meet the difference between actual and recoverable costs.

Provided C raises his property a house at a time, A is left with a continually decreasing cause of action and no practical legal remedy until all his light has gone. The rigid application of the Colls decision can therefore amount in practice to a clear denial of justice. This may appear to be an extreme case, but gradual raising is more customary than uncommon in urban development.

Hitherto the Courts, recognising the injustice of the principle of "first come, first served," implied in the Colls decision, have inclined to the granting of injunctions in cases of even small reductions of a quantum of light already insufficient, preferring to curtail the ambitions of C rather than to injure the established property and amenities of A.

The method of meeting the difficulty adopted in Mr. Justice Maugham's judgment is indicated in the following quotation from the transcript:—

"The point, however, which seems to me to arise in this case, and which, so far as I know, is new, is as to the claim of the defendants that they may build as high as they like opposite to room No. 1, provided that the room gets from the eastward over Eyre-street a sufficient light for all the reasonable purposes of mankind. With regard to the question, which I think is of some importance, I will test it by assuming for the purposes of clarity that the plaintiffs' building is a building with two windows on the north side and two windows on the east side—I am deliberately taking two for the purpose which I have in mind. The windows to the north look over a close called Black Acre, and the windows to the east look over a close called White Acre; and for simplicity I shall assume that there is no building either on Black Acre or White Acre, and that each of them is an open space. Now the plaintiffs' windows, both to the North and to the South, are, I will assume, ancient lights. The question that arises is this: Can the owner of Black Acre build as high as he pleases if White Acre remains an open space, or is there any limit to his right? It is to be observed that if Black Acre chooses to build so as to entirely obstruct the north windows of the plaintiffs, while White Acre remains an open space, the owner of White Acre will probably not be able to build at all. Mr. Morton, in his clear argument on this point, says that the doctrine is first come, first served. I think he admits there is a difficulty if the owner of Black Acre and the owner of White Acre were both to begin to build at once; and there is also a difficulty if the owner of Black Acre having begun to build, the owner of White Acre runs up a screen—it may be of quite light construction—at the edge of his plot, so as to obstruct the eastern windows of the plaintiffs' building. Clearly, Mr. Morton's proposition leads to very great difficulty and, as I think, to great injustice; and I do not think it is sound. The proper way to test the matter, in my opinion, is to consider what the nature of the right is that is obtained in such a case. . . ."

"Now in the case which I am considering, where the dominant tenement has windows both north and east, and rights of light are acquired for those windows, and, at the same time, as the building is one where the windows are, as I assume, where they were in the original building, what restriction is to be imposed upon the owners of Black Acre and White Acre as soon as the right is acquired under Section 3? If Mr. Morton was right, the obligation upon the owner of Black Acre, for instance, would be of this character, that he will not erect his building to such a height as will interfere with the northern windows of the plaintiffs unless the owner of White Acre, at the time when the owner of Black Acre was building, had preserved an open space on White Acre; and similarly the owner of White Acre would be placed under an uncertain obligation with regard to building dependent upon the existence or the non-existence of buildings on the plot called Black Acre. To my mind, that is a wholly impossible proposition. . . .

"The alternative seems to me to be comparatively simple. At the moment when the right is acquired by the plaintiffs in respect of both their two windows on the north and their two windows on the east, I think the nature of the restrictive obligation imposed upon people facing those two windows is that they will not so build as by their joint action to cause a nuisance to the plaintiffs within the meaning of that term as used by the House of Lords; in other words, I think the proper view is that Black Acre, or its owner, can build to such a height as with a similar building by the owner of White Acre will yet leave sufficient light for the plaintiffs' premises. Their obligations are the same; neither has a greater obligation than the other in the simple case which I am considering. That seems to me to resolve this problem. Accordingly, I think it is a mistake to suppose that, having regard to the very large amount of light which is coming over Eyre-street to the eastern windows of room No. 1, the defendants are entitled to build as high as they please on the other side of Surrey-street. I think that proposition goes too far, and must be qualified so as to preserve the rights of the owners of the premises on the other side of Eyre-street to a reasonable utilisation of their land, and I see no reason to suppose that at some not distant date the owners of those premises, called, I think, Leader House, should not desire to erect a substantial building right up to the corner of the building line."

Whatever may be the advantages of this novel prophetic method of assessing damages, it is clearly opposed to the principle that nuisance is to be gauged by the light left, and not by the amount taken, whilst the difficulties of applying it in practice are obvious. In the example considered, B would have to treat A on the footing that he was responsible for an inevitable epidemic of 80 ft. buildings on all sites visible from A's windows. If, as might well happen, B's building had been completed without serious protest from A before A issued a writ, then the result of an action for damages by A should, on the strict application of this judgment, involve the payment by B to A of damages representing the difference in value of A's house as under the original conditions of reasonable obstruction, and as surrounded with buildings 80 ft. high. This would probably be the difference between its value as a dwelling-house and its value as a mere storage warehouse, probably 70 per cent. or 80 per cent. of its original value.

It would be interesting to know whether, if that were done, C could not then build with impunity, A having been fully compensated; or if B's building had been submitted to by A without claim, whether C could not plead successfully in reply to any protest by A, that A should have extracted full damages from B, and is therefore estopped from claiming anything from C.

Still more complicated are the questions which could arise if C's building were delayed for a few years, and the properties had changed hands in the meantime. But they would be simplicity itself to the problems which would need solution if the delay exceeded 20 years and new prescriptive rights by leaseholders had matured. Similar difficulties will occur to any experienced practitioner.

Although the difficulties of reconciling this judgment with the Colls decision appear to be insuperable, they would be lessened by the deletion of the words "a similar building." The judgment could then at least be applied without anomalies, although only on the assumption that the words used should have been "buildings to a reasonable height," and that it is possible to define reasonable height.

Fortunately, by the simple methods advocated in the report of the British National Committee on Daylight Illumination, adopted at the meeting of the International Illumination Commission at Cambridge last September, together with the standard of inadequate light fixed at the same time, reported in *The Builder* of September 25, 1931 (p. 511), it would be a comparatively simple matter to define limits of demarcation between reasonable and unreasonable obstruction for towns, suburbs and rural villages.

Damages in respect of moderate infractions of such standards over part of the aspect of the windows of any building could be assessed without much difficulty as part of the light in which the claimant had property, *i.e.*, derived from sky visible from above reasonable obstructions over the whole aspect, whether such reasonable obstructions were in being or not.

Similarly obstructions going up to an excessive height above such standards of reasonable building could be made amenable to compulsory modification if it could be shown that, if repeated elsewhere, the claimant would suffer an intolerable nuisance.

Although, as it stands, the judgment opens the door to all sorts of claims, it would appear to be one which, if slightly altered in wording and duly carried to its logical conclusion, would restore to the law that wise elasticity which is essential to reasonable justice, and of which it was deprived by the rigid Colls decision.

Doubtful law inevitably breeds unnecessary litigation, and any ambiguity, however well meaning, can for this reason often cause more real injustice even than technically unjust law, provided the latter is fixed and certain in its incidence. It is, therefore, desirable in the interests of reasonable building development that the matter should be cleared up authoritatively as quickly as possible. Unfortunately, the Sheffield Corporation, being satisfied with the very substantial victory implied in the nominally adverse judgment, were content not to appeal.

ILLUSTRATIONS

(*Continued from page* 970.)

Mr. P. Maurice Newton, A.R.I.B.A., is the Borough Architect.

A House at Torquay.

This house has been built on the site of a former house, which was pulled down about twenty years ago. The original house was of the large Victorian type, with basement kitchens, and the new house had to be brought up to the required level of the front terrace. A portion of the old basement has been turned into a courtyard with a flight of steps leading down to it from the drive above, and a much older ruined archway has been left and used as an entrance-way to the house, with a little drawbridge running over the courtyard below to the front door. The house stands high, with magnificent views across Tor Bay, and the garden around it of many years' standing has been perfected by its present owner. The house is built of brick with stuccoed walls (the latter being practically essential in the West Country); the roof is slated with large, random green Vronlog slates. The balcony, staircase and internal and external doors are of oak. The fireplaces are specially designed for the house and are of brick and oak.

Mr. Fred. Harrild, M.A., F.R.I.B.A., is the architect.

The "Stainforth" Vane, Weymouth College, Dorset.

This vane has been erected at Weymouth College to commemorate the breaking of the world's speed record in the air by an Old Weymouthian, Flt.-Lt. G. H. Stainforth, in the S.6B, 1931. The drawing shows the vane in its future position on the belfry of the proposed new dining-hall at Weymouth College, the architects for which are Messrs. Beresford Pite and Partners in collaboration with Messrs. Crickmay and Sons. The vane was carried out by Mr. C. R. Wyche, of Nottingham.

An Electricity Sub-Station.

The Wharfdale-road sub-station for the Electricity Department of Islington Borough Council (see p. 959) is an interesting structure, being without windows. The lower part has large openings fitted with removable grilles covered with copper gauze to prevent rats and other vermin damaging the cables and machinery.

The general contractors were Messrs. C. and F. Bryen, of Crouch End, and the following were sub-contractors:—Aston Construction Co., steelwork; T. W. Palmer and Co., Merton Abbey, iron grilles, railings and gates; Nash and Hull, fascia lettering; Ragusa Asphalte Paving Co., asphalting; Haywards, Ltd., steel doors; J. Ebner, teak flooring; Shillitoes Concrete Specialities, Ltd., reinforced concrete and granolithic floors.

Mr. E. C. P. Monson, F.R.I.B.A., is the architect.

SOCIETIES AND INSTITUTIONS

ILLUMINATING ENGINEERING SOCIETY.

Progress in Decorative Electrical Illumination.

A PAPER on this subject was read by Mr. E. H. Penwarden at a meeting of the Illuminating Engineering Society recently. In the course of his remarks the lecturer said the most pronounced development in lighting practice in recent years, as applied to individual lighting units, was the introduction and extensive use of glass as a combined light-diffusing medium and decorative motif. In conjunction with this innovation the simplification, and in some cases almost complete elimination, of visible metalwork was a very marked feature of modern design, and was a complete reversal of the old ideas. Heavy-moulded and pressed-glass panels were extensively used, and were still much in demand. Very attractive effects could be obtained by a combination of pressed-glass and sheet-glass panels, and pleasing colour effects were introduced by tinting the panels to harmonise with the decorative treatment of the rooms. There was, however, a distinct movement in favour of the use of sheet-glass panel fittings, which were lighter in weight and lent themselves to more delicate treatment. Various types of figured glass were used, and pleasing decorative effects were obtained by sandblasting the surface of plain glass and introducing etched and tinted relief. Although we were still dependent on Continental glass manufacturers for certain kinds of decorative glass, British manufacturers were now making many patterns of standard rolled glass in varying tints and with excellent diffusing properties, which were being successfully applied to modern lighting units. It was extremely hazardous to embark on an important decorative lighting scheme without some foreknowledge of the resultant illumination, and the only means of ensuring success was for the fittings designer, the architect and the illuminating engineer to act in concert.

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE.

The results of the annual Professional Examinations of this Institute are just issued. Seven hundred and twenty-one candidates sat for them, of whom 407 were successful. Mr. Trevor H. Hall, of Wakefield, being first in the Final Examination, gaining the Institute prize of fifteen guineas, and Mr. Howard H. Wagstaff, Croydon, winning the Silver Medal and prize of ten guineas in the Intermediate Examination. The Daniel Watney Gold Medal and prize of ten pounds in text-books, for the highest aggregate of marks in the Intermediate and Final Examination, is awarded to Mr. J. E. King, of London.

CHARTERED SURVEYORS' INSTITUTION.

Scholarships.

For 1932 the Council of the Chartered Surveyors' Institution have awarded the following scholarships, which are offered annually:—

One scholarship of £100 per annum, tenable for three years at Cambridge University, to W. F. Carnaby, Upper Norwood, S.E., at present at Uppingham School.

Two travelling scholarships, value £125 each, respectively to S. E. Scammell, a pupil with Messrs. Richard Austin and Wyatt, chartered surveyors, Fareham, Hants; and W. M. Fletcher-Vane, late of Trinity College, Cambridge, and at present a pupil with Mr. J. M. Clark, Past President, Haltwhistle, Northumberland, for the study of agriculture, estate management, and land tenure conditions in North Europe.

Particulars of these scholarships can be obtained from the Secretary, the Chartered Surveyors' Institution, 12, Great George-street, Westminster, S.W.1.

SOUTHERN COUNTIES FEDERATION.

At the invitation of the Corporation of Reading waterworks committee and Messrs. Holloway Bros. (London), Ltd., the contractors for the new Tilehurst Reservoir, a party of members of the Southern Counties Federation of Building Trades Employers was shown over the works in progress on May 24. The party was welcomed by the chairman of the waterworks committee, Alderman Parfitt, the water engineer, Mr. Leslie C. Walker, the designers, the constructional engineers, the resident engineer, and Mr. Palmer on behalf of the contractors. Among the party were Mr. A. Francis, F.I.O.B., of Tilehurst, immediate Past-President of the Federation, and Mr. L. A. Peyman, A.I.O.B., President of the Reading and District Building Trades Employers' Association.

After an interesting tour of the works, during which Mr. Walker and his colleagues explained the nature and progress of the job, the party was entertained to tea by Messrs. Holloway Bros. A vote of thanks to the Corporation and the contractors was proposed by Mr. Francis and seconded by Mr. Peyman, and speeches in response were made by Alderman Parfitt, Mr. Walker, the resident engineer (Mr. Lion), and Mr. Palmer.

At the invitation of Messrs. Thos. Parsons and Sons, Ltd., a party of members of the Southern Counties Federation of Building Trades Employers visited the firm's Mitcham works on the afternoon of May 19. After an interesting tour of the works, the party was photographed, and tea followed in the sports pavilion.

The visitors were welcomed on behalf of the firm by Mr. Kemp, and their thanks were expressed by the President of the Federation, Mr. W. J. Brooker, of Eastbourne. An interesting and instructive demonstration of the use of a number of Messrs. Parsons's products was given after tea.

An Old-Established Press Guide.

The advantage of a reference book containing a full list of periodicals published in Great Britain and Ireland, including the year of establishment, when published, price and publisher's name and address, will be apparent to every advertiser and business man. Such a publication is "Willing's Press Guide," of which the 1932 issue, the 59th annual, has now made an appearance from 356-364, Gray's Inn-road, W.C., price 2s. 6d. An important point is that the "Guide" is up-to-date, new publications being included, and the many papers that have been discontinued or amalgamated have been noted. An alphabetical list renders reference immediate, but in other places in the book, magazines are sectionised off under such headings as trades, districts, etc. Altogether, the book is a most valuable one.

TOWN PLANNING AND TRANSPORT

On May 27 a joint meeting of the Town Planning Institute, the Institute of Transport and the National Housing and Town Planning Council was held at the Institution of Electrical Engineers, when Mr. G. L. Pepler read a paper on "Town Planning and Transport."

Mr. Pepler first referred to the paper read by Mr. Paterson before a joint meeting of the three bodies, and then to the inaugural address of Mr. Frank Pick (President of the Institute of Transport) at Berlin last year, in which he clearly demonstrated that it was transport which made possible the growth of great cities. If transport failed, the great city was bound to decay. That transport was the creative influence, but also, in its most comprehensive sense, dependent on the cities which it created. It was both master and servant.

The cores of most of their towns, said the lecturer, were shaped in an age of horse-drawn traffic or when all long-distance traffic was carried by railway or canal. Motor transport had enormously increased the area within daily range of the town centre, the narrow streets of which were crowded with this traffic having business in the town and, at the same time harassed by through traffic which had no business there. Old buildings were replaced by larger ones, and the old streets had to accommodate the increased concentration of traffic caused thereby. Suburban railways and 'bus routes had made it possible for people to live well out in the country and yet be in daily reach of their work in the town. That had led to fortuitous invasion of the countryside and the destruction of much beauty, and was landing local authorities in extravagant expenditure in the protection of some and the provision of other public services. In addition, there was to be noted a definite southward movement of industry to which rural schemes of electrification were adding mobility. They had, on the one hand, to adapt their towns to meet adequately and make the best use of these new forces and circumstances, and, on the other, to safeguard the seemliness of their towns and villages and the beauty and agriculture of their countryside.

One essential to the solution of the problem appeared to be the collaboration of those responsible for the means of transport with the town planners. The necessity for that collaboration was emphasised at the representative international conference held at Berlin last summer, and the following quotations from the summing up of the discussion bore on that point:—(1) Several large cities have, from time to time, appointed commissions to study their traffic problems and suggest solutions, but their labour has been largely wasted and the problem remains unsolved because it has been considered alone. No solution is possible except on broad town-planning lines. (2) Street-widenings cost a great deal of money, but do little or nothing to remove congestion. It would be far cheaper to spend a little money on the preparation of a comprehensive plan. (3) The preparation of a comprehensive plan requires the collaboration of town-planners and traffic experts. It was suggested that probably the best method was to call experts into collaboration with the town authorities rather than to hold a competition or to set up a large permanent official staff. (4) In several large cities, notably Berlin and London, the agencies of passenger transport (other than main line railways) have been or are being consolidated under one management, but this will do nothing to solve the traffic problem unless their operations are directed according to a comprehensive regional plan. (5) The primary aim of planning is to secure the health, comfort and welfare of the people, and the first item to be decided should be zoning, that is the disposition of functions: industry, housing, business areas, bulk of buildings, open spaces, etc. (6) Planning problems, including traffic, are not very hard to solve on paper. The chief difficulties arise through lack of co-ordination between planning experts and traffic experts and agencies. The financial stringencies of the present day are also a deterrent, but would not be so if people realised the huge sums of money daily wasted and the waste of health, comfort and efficiency, due to present conditions.

With regard to relieving traffic congestion at the centre and giving adequate scope for the safe and efficient exercise of the many functions that must be centralised, the principal remedy recommended at the Berlin Conference was recentralisation in self-contained satellite centres. He ventured to set down a few of the points that struck the planner when observing the different means of transport:—

In Great Britain railways were a magnificent pioneer achievement, but in some cases they had the appearance of having ignored some towns altogether, and in few cases did they appear to have fitted in with the general functioning of the town. In several instances the line formed a barrier cutting the place in two. The station formed the front door of the town, but often in appearance and location gave much more the impression of a back-stairs entrance. The appearance of some fine portals that were provided had subsequently been spoilt by the promiscuous erection of notice-boards or hoardings. Adequate space was rarely provided for the assemblage of road vehicles, and this hindered interchange of means of transport. Goods stations often had inadequate approaches, and the road traffic to and from them cumbered localities and streets not adapted for the purpose. Frontages to railways from which sidings could have been run (and, owing to "cut and fill," the possible number of off-takes was limited) had been built up with houses, or occupied by one industry, perhaps itself not using the railway, or, at any rate, preventing access to other undertakings. A contrast to this was the community siding at Letchworth, which might not be perfectly laid out, but which, at least, served several industries. One thing that railways could be congratulated upon was their freedom from ribbon development. The railway, with access only possible at a station, encouraged grouped development.

Recently there had been a relative decrease in traffic on canals and coastwise shipping. There were about 3,825 miles of canals and canalised rivers in Great Britain, over 25 per cent. of which were owned by railway companies. It was encouraging to hear that important improvements were projected for the Grand Junction Canal. Except for ship canals, the severance caused by canals was not so severe as it was in the case of railways, but there again one had noticed long frontages occupied by concerns which made no use of the means of transport provided. With reference to ports, one often observed that, while immense trouble had been taken over the water part of the business, the provision of room and means for the disposal of passengers and goods with comfort and celerity appeared to have been rather an after-thought.

Aviation was a new method of transport, and, therefore, there would be no excuse if we did not profit by the mistakes made in connection with the older forms. They had the opportunity not only to provide adequately for this new service, but also to see that it fitted in with general planning and was co-ordinated with other means of transport. There was no time to be lost, because sites suitable for aerodromes were strictly limited in number, and the system of overhead electricity transmission now being planned was obviously a factor of considerable importance to flying. Planning considerations with reference to aviation were admirably dealt with in the First (Interim) Report* of the Aerodrome Committee, the headquarters of which were at the R.I.B.A.

Suggested Traffic System for Model Town of 140,000 inhabitants.

Then there was the question of roads. In 1930 there were in this country 2,217,609 motor vehicles and 177,310 miles of paved roads. During the last decade road mileage increased by just over 1 per cent. and the number of motor vehicles by 300 per cent. This gave some indication of the strain which the motor vehicle had imposed on the road system. The revival of the road was now in full swing, but, as it seemed to him, was hampered by the fact that they had not yet disentangled their conceptions of its functions. They were, in fact, using the same road for incompatible purposes, namely: (1) to carry vehicles travelling at the speed of express trains, (2) to provide access to houses and business premises. With regard to roads, there were national, regional, and local requirements, each of which would to some extent conflict with the other unless properly

* See *The Builder*, December 18 and 25, 1931.

planned for. Theirs was a small, densely populated island in which much was already "set," but there was still opportunity by wise planning in which the road engineer and the town planner should co-operate to improve traffic facilities on safe, sound, economical and attractive lines.

It was far easier to point out defects in the existing scheme of things than to say what that scheme should be. We wanted our towns to be real towns and our country to be real country—not the indistinguishable mixture they were fast becoming. How could transport experts and undertakers and town planners co-operate to help forward the realisation of such a future? It was largely the improvement in means of transport that had facilitated the growth of towns. People appeared to prefer to live in or on the outskirts of a town. How could that growth be directed into compact units so that it neither overburdened the centre nor spread it tentacles promiscuously, interfering with agriculture, destroying beauty and causing wasteful expenditure on public services and administration? Among the many factors to be borne in mind, the following seemed to call for mention:—(1) census returns appeared to indicate that the population of Great Britain as a whole would not increase; (2) the additional amount of land actually required for building was comparatively little; (3) as Mr. H. G. Wells had recently reminded us, many of our buildings were out of date and inefficient and should be replaced. Improved means of construction made possible larger and more efficient building units. That was likely to stimulate reconstruction, which must take place in accordance with a comprehensive plan, if what Mr. Adams classified in his New York Regional Report as the two most important economic factors, "light and locomotion," were to be retained or secured. The Berlin Conference had indicated that in their opinion the cure for traffic congestion was to be found in a system of recentralisation in self-contained satellite centres. They suggested that the existing tendencies towards somewhat discursive decentralisation gave the opportunity for establishing a carefully devised scheme of recentralisation on a system of defined and balanced units. It would be most interesting to learn whether the transport experts considered that to be a reasonable and practicable proposition from their point of view.

It seemed obvious that the planner and transport provider must work together, as, if one forestalled the other, confusion was bound to follow. For example, the opening of a new railway station would create a new settlement, and if there was to be a scheme to secure real towns and real country, the correct placing, lay-out and definition of a new settlement was of vital importance. Also, the planning of the settlement was important from the transport point of view so that the approaches to both passenger and goods stations might be properly placed, the surrounding zoning might be appropriate, free movement be facilitated, and adequate space provided for interchange of modes of transport, 'bus garages, parking places, etc. Again, in arranging 'bus routes, an important consideration must be the linking up of settlements and of them with the centre, on straightforward lines and without interruptions, and, also, where old settlements were to expand or new ones to be placed.

In 1924, Professor Brix (of Berlin) and he (the lecturer) had written a paper on Arterial Roads for a Conference held in New York in 1925. They suggested that in dealing with the arterial road system of any region or place, it was useful to reduce the problem to a diagram, both as regarded existing conditions and proposals. It was, however, of the greatest importance that any such diagram should be used only as a diagram and there should be no attempt to force any uniform pattern on a locality. It was essential that the most should be made of all local features, even to stress local identity, and that monotonous repetition should be avoided. Any system must, of course, take into account all forms of transport, by road, by rail, by air, and by water if it existed, and further, must be designed to meet the varied needs of the place rather than to attempt to make those needs adapt themselves to itself.

They produced a diagram indicating their ideas as to a sound system (see page 980) based on the idea of dividing up a town or directing town extensions into a series of well-defined wards, more or less self-contained as regarded the minor public buildings, so that local identity might be enhanced and good citizenship encouraged because the inhabitants would not feel lost in a huge unarticulated agglomeration. An important point was the wide inner circle (say, 300 ft.) about a mile in diameter, enclosing the main centre of the town. This should not only be made into a parkway, so that all entering the centre might enjoy a glimpse of green, and the business man might have a pleasant promenade accessible in his luncheon hour, but also it should form the means of circulating all omnibus or tram traffic, none of which should be allowed to pass beyond this girdle and cause congestion of the busy centre. Public buildings and theatres, placed in the circle, would not only have a fine setting, but the transport of crowds that thronged them would be enormously facilitated. Many items of a town were left out, and all detailed planning, by which any amount of variety could be introduced. It was only put forward as a suggestion for a main arterial system. Contours, a river, or an existing railway, were a few of the factors that would modify its application profoundly.

After seven years, said the lecturer, he reproduced his diagram, not with any pride, but in the hope of provoking criticism from a different audience. It was obvious, for example, that it could not be applied to London, but it illustrated a principle that was not altogether inapplicable and did embody to some extent the point so strongly urged in the First Report of the Greater London Regional Planning Committee, namely, that the problem of town planning should be approached from the point of view of planning ample, though selected, tracts for building development on a background of open lands rather than, as had hitherto been the case, from that of planning limited tracts of open space to be reserved on a background of unlimited potential building development.

Discussion.

Dr. Raymond Unwin (President, R.I.B.A.) expressed his full approval of what Mr. Pepler had said. Coherent design was always better than haphazard design, even if it was not of the best. It was always easier to adapt areas which had been designed in some way to modern conditions than the muddled places which had grown up owing to the owners being able to do what they liked on their own ground. It was not planning and co-ordination which led to what people were afraid of, viz., that society in these days was degenerating into a condition of mass mechanisation. That condition came from the complete breakdown and haphazard development. It was only co-ordination of their efforts which would save them from the startling reaction they were afraid of. Unless they looked forward and prepared a plan and made up their minds what they were going to aim at in the future they would go along muddling with their transport faults.

Mr. W. H. Gaunt emphasised the need for getting more people interested in the question and said the trouble would never be cured until town planners were given more rein for their imagination.

Mr. T. Alwyn Lloyd (National Housing and Town Planning Council) said they were looking forward to the passing of the Town and Country Planning Act, and it would be one of the most appalling lost opportunities of the present century if the country did not take advantage of it.

Signor Marco Semenza (consulting engineer, Milan) said they had the same problems in Italy, although they had no town like London. They were planning roads and reserving roads for motor transport, but their great difficulty was in getting zoning powers.

TOWN PLANNING SCHEMES

THE Town Planning Department of the Ministry of Health has issued a list of local authorities in England and Wales engaged in the preparation of Town Planning Schemes, showing the stage reached in each case. From these we take the following selection of schemes in an advanced stage. NOTE.—Asterisk (*) indicates that the scheme has been finally approved by the Minister and become operative. Dagger (†) indicates that the scheme itself has been submitted but has not yet been approved by the Minister.

ENGLAND

(Excluding Monmouthshire).

BEDFORDSHIRE.—*Luton T.C.

CAMBRIDGESHIRE.—*Cambridge T.C. (No. 1).

CHESHIRE.—*Wallasey T.C. (St. George's Mount Area).

DERBYSHIRE.—*Chesterfield T.C. (No. 1); *Chesterfield T.C. (No. 1 amending); †Chesterfield T.C. (No. 2 amending); *Derby T.C.

DURHAM.—†Billingham U.D.C.; †Stockton-on-Tees T.C.; †Stockton-on-Tees R.D.C. (resolutions passed by North Tees Joint Town Planning Committee); *Sunderland T.C. (No. 1).

ESSEX.—†Chelmsford R.D.C. (No. 1); †Chingford U.D.C.; †Ilford T.C.; *Loughton U.D.C.; †Rayleigh U.D.C. (Rawreth); †Southend-on-Sea T.C. (North Western); *Woodford U.D.C. (No. 1).

HERTFORDSHIRE.—*Great Berkhamstead U.D.C.

KENT.—*Beckenham U.D.C.; †Dartford U.D.C.; *Margate T.C.; †Sidcup U.D.C.

LANCASHIRE.—*Great Crosby U.D.C. (No. 1); †Manchester T.C. (South Manchester Scheme "B"); *Rochdale T.C. (No. 1).

LONDON.—*London C.C. No. 1 (Wandsworth M.B.); †London C.C. Nos. 3 and 4 (M.B.s of St. Pancras and Hampstead).

MIDDLESEX.—†Acton T.C.; *Brentford and Chiswick U.D.C. (Chiswick Riverside Lands); *Brentford and Chiswick U.D.C. (Chiswick Riverside Lands Amending Scheme); †Ealing T.C. (Original Area); †Finchley U.D.C. (No. 1); †Finchley U.D.C. (Nos. 2 and 3); †Harrow-on-the-Hill U.D.C.; †Hendon U.D.C. (Areas Nos. 1, 2 and 3); †Hendon R.D.C.; *Ruislip-Northwood U.D.C. (No. 1); *Ruislip-Northwood U.D.C. (Amendment Scheme No. 1); *Ruislip-Northwood U.D.C. (Amendment Scheme No. 2); *Ruislip-Northwood U.D.C. (Amendment Scheme No. 3); *Ruislip-Northwood U.D.C. (No. 2); †Southgate U.D.C. (No. 2); †Willesden U.D.C.

SHROPSHIRE.—†Atcham R.D.C.

SURREY.—*Coulsdon and Purley U.D.C.; *Croydon T.C. (South); *Croydon T.C. (North); *Croydon T.C. (East); †Maldens and Coombe U.D.C.; *Mitcham U.D.C (No. 1); *Richmond T.C.

WARWICKSHIRE.—*Birmingham T.C. (Quinton, etc.); *Birmingham T.C. (East); *Birmingham T.C. (North Yardley); *Birmingham T.C. (North Yardley, amending); *Birmingham T.C. (East, amending); *Birmingham (East, amending, No. 2); *Birmingham (South).

WORCESTERSHIRE.—*North Bromsgrove U.D.C.

YORKSHIRE (EAST RIDING).—†Kingston-upon-Hull T.C. (South East); *Kingston-upon-Hull T.C. (North-East and Sutton); *Kingston-upon Hull T.C. (North-East, amending).

YORKSHIRE (NORTH RIDING).—*Scarborough T.C.

YORKSHIRE (WEST RIDING).—†Bradford T.C. (Clayton Area); *Elland U.D.C.; †Halifax T.C. (Nos. 1, 2 and 3); *Leeds T.C. (Buckingham House); †Leeds T.C. (No. 6); *Leeds T.C. (Templenewsam No. 1); †Leeds T.C. (Hunslet (Templenewsam) Amending Scheme); †Linthwaite U.D.C.; *Otley U.D.C. (No. 1).

WALES.

GLAMORGANSHIRE.—†Cardiff R.D.C. (No 2).

MECHANISATION IN THE BUILDING INDUSTRY

We continue our report of Mr. J. M. Firth's lecture to the Quantity Surveyors' section of the Chartered Surveyors' Institution on this subject. The lecturer gave certain facts about the use of machinery in producing and employing some of the materials used in a modern building.

Making of Lifts.

He was in the works of one of the large lift-contractors the other day and was much impressed by the fact that everything possible had been done to mechanise the manufacturing side of their particular work, and

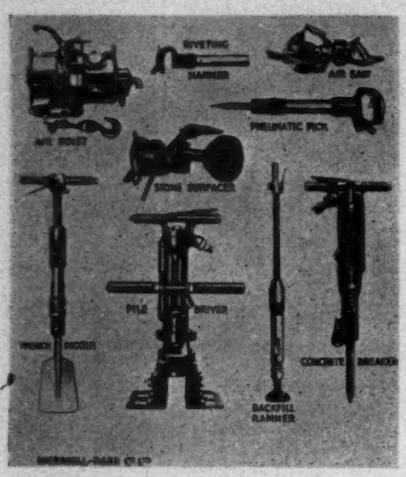


FIG. 1.—BUILDERS' TOOLS OPERABLE BY COMPRESSED AIR.

he was informed that in the last three years 60 high-capacity machine tools had been installed and the greater productive power of these machines, replacing old tools, had enabled them to get better output with less labour.

He noticed that all the machine tools which handled materials of heavy weights were fixed beneath an electric travelling crane. Some which required crane service frequently had been provided with special separate hoists with electric power, so as to avoid any delay in production due to the general crane being used elsewhere. Throughout this factory, all hand operations were, wherever possible, assisted by mechanised apparatus. Power, in the form of compressed air and electricity, was available everywhere. Portable hand riveters, drills, chisels, grinders, and other tools were provided for the workers' use, operated by one or other of these powers.

Metal Windows.

Metal windows had very largely taken the place of wood windows. He believed that in 1914 the percentage of metal windows used as against wood was 2½ per cent. to 3 per cent., and to-day the percentage was between 40 per cent. and 45 per cent. A most striking feature of the manufacture of metal windows was that approximately half as many men were to-day producing the same tonnage of windows as was being produced three years ago, and this was due to entire reorganisation of lay-out and general mechanisation at the works. One or two important features were the speed and low cost of electric welding as against oxy-acetylene welding, mechanical straightening of the steel sections where previously hand method only was in use, together with gang-press work as against single operation press work in general use in the earlier period.

On the mechanical side, the following brief schedule showed the reductions in the last five years in the wages cost per ton of windows, which reductions had been made entirely owing to the introduction of mechanical operations and group mechanic operations.

	Costs per ton.
June, 1928	100 %
,, 1929	80 %
,, 1930	70 %
March, 1932	50 %

Proceeding, the lecturer said he would like to tell them of some of the things he saw in America and Canada a short time ago, with the reservation that while most of the

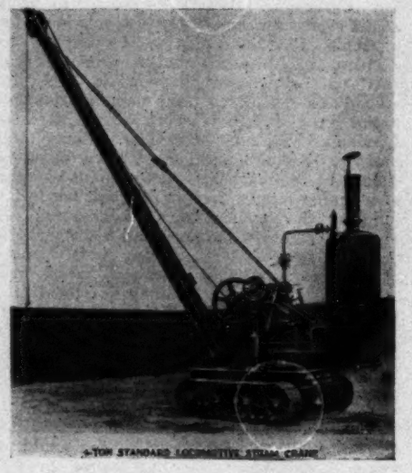


FIG. 3.—FOUR-TON STEAM CRANE, ON CATERPILLAR TRACKS.

methods and machinery he saw were eminently suitable for conditions and requirements there, they would not all by any means be practicable in this country.

Apartment houses were being erected in a suburb of New York. The first proceeding was to erect two towers, at different parts of the site, which contained electric hoists with a small crane at the top to distribute materials to different parts of the site.

A building in course of erection in Wall-street had from 18,000 tons of steel in it, and seven boom or guy derrick cranes were worked by steam power, the cost of unloading and hoisting and erecting the steel being 16 dollars or 66s. per ton. On a 200 ft. frontage in this building 80 bricklayers were at work, 700 to 800 bricks per day of eight hours being laid by each man. One general bricklayer foreman was on the job, and a number of "pushers" controlled sections and set out and actually laid the first course of each section of the work.

The glazed bricks came by rail, packed in straw, and were lifted from the carts by a pair of long tongs lifting about ten at a time. A series of portable motors mounted on wheels ran about the job, easily convertible for any purpose. Iron staircases were erected with the steelwork, but extra accommodation ladders about 5 ft. wide were fixed for concretors. He was informed that one concrete mixer of ½-yd. size supplied 12 yds. of concrete per hour, and one mixer kept 250 bricklayers supplied with mortar. He gathered that the steel tubular scaffolding and gantries were supplied by a scaffolding company who erected, maintained, and removed same at a monthly rate.

An interesting feature in another building he noticed was that portable metal putty bins were used for lime putty 8 ft. by 4 ft. by 2 ft., with two sloping sides, so that the putty being mixed in the basement could be hoisted in the bins to the various floor levels and easily conveyed to the part where the plasterers were at work.

FIG. 4. — HALF-YARD PETROL-DRIVEN EXCAVATOR WORKING AS CRANE-NAVVY.

Another building he saw had difficulties not generally met with here, the foundations having to go through tidal water, and owing to the height having to go right down to the rock. Caissons were used about 36 ft. long by 6 ft. wide. The men working in these caissons were working under air pressure and were called "sand hogs," and could only work for two shifts of 45 min. each, being paid for eight hours, and the building regulations in New York provided that when men were working under these conditions a hospital lock had to be provided on the job and kept in proper working order.

He noticed that a concrete mixer of 1¼-yd. capacity was being used here, and this was filled and emptied once every three minutes; ten men were employed in addition to three men wheeling away the 1¼ yd. skips which had hinged bottoms for shooting. All material for the concrete went down shoots to the old basement level, and an electric hoist was used to raise the ballast to the mixer and then to raise the mixture of sand and cement.

Four steam cranes were erected on a central platform, and the complicated compres-

FIG. 2.—COMPRESSED AIR-DRIVEN CROSS-CUT SAW.

FIG. 5.—MECHANICAL BACK-FILL RAMMER, BENZOLE-DRIVEN.

sors and machinery were also on this platform. In addition, several other cranes were fixed at suitable positions for unloading materials, the controlling engines being housed in a large underground engine room 50 ft. square. All steam power came from the city's mains.

Sometimes concreting had to be done when the temperature was about zero level, and this was done by heating the water and by placing a fire near or running steam pipes through the aggregate and other material.

The conditions of soil and surroundings in America and here were different, but new methods of construction here were bringing new problems. Now we had concentrated loads and had to go down for our foundations to the blue clay level in London to find a bearing surface sufficient to take such loads, and it was often found to be economical to provide two, three or four basements, and this deep excavation had been a feature of many of the large London building contracts in the last decade.

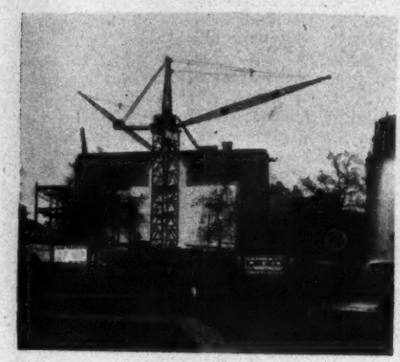


FIG. 6.—SINGLE-TOWER CRANE OF 360 DEG. RANGE.

Generally speaking, this foundation work had been costly and laborious, as much care had had to be taken to give adequate support to the surrounding buildings on a ballast bottom, and great care had had to be exercised to ensure that the pumping away of water which was found between the ballast and the clay should not disturb the concrete foundations of adjoining buildings.

The lecturer then showed on the screen a large number of slides of the principal items of machinery in use on building work. We reproduce a selection of these, with his comments.

Fig. 1 showed a selection of builder's tools which could be operated by compressed air.

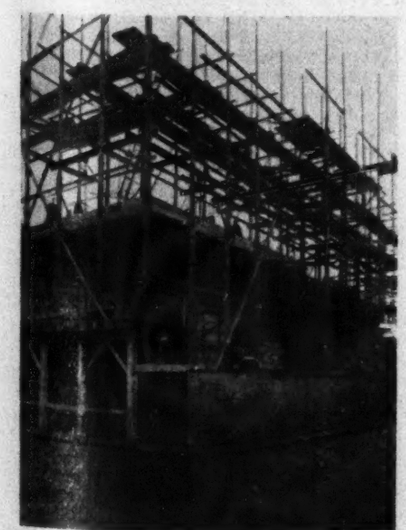


FIG. 7.—ELECTRICAL TRAVERSING SELF-LANDING HOIST.

It was by no means complete, spray painting guns, for instance, being notable omissions. From one to eight lines of air hose might be run from a compressor, according to its size, and each hose was capable of working any one of these tools.

Fig. 2.—Compressed air could also be used to drive this revolving cross-cut saw. It was actually a chain, in the form of an ellipse, with a saw tooth on each link, and could be used by two men for cutting wet timber up to 12 in. by 12 in.

Fig. 3 was a 4-ton steam loco crane mounted on caterpillar tracks, making rails unnecessary.

Fig. 4 showed a ½-yard petrol-driven excavator fitted as a crane navvy actually at work. The bucket had just filled itself from the soil on the left-hand side of the picture and was now about to tip the contents into the waiting lorry. The bottom of the bucket was hinged and was controlled by a rope from the driver's cabin. For foundation work the crane navvy equipment was most suitable, owing to its greater digging power and speed, but it had the disadvantage of working on the finished level of the excavation, so that unless the traffic could be taken into the hole, the excavation must be handled again by crane or conveyor, and when the job was finished it was often difficult to remove the machine from the bottom.

Fig. 5 showed a very useful machine for filling trenches, a mechanical backfill rammer of the explosive type, used to fulfil the requirements of bills of quantities which told one to "return, fill and ram." The man in the picture had attached to his back an accumulator and coil to provide the spark. Benzole was contained in the foot and was sucked up through induction pipes by the vacuum caused by the fall of the piston. A lever on one of the handles closed the valve and broke the circuit, and caused a spark at the plug. The explosion lifted the whole machine 12 to 15 inches in the air, and the ramming blow was made when the machine fell by gravity. If this work were done by hand, six men would be shovelling and five men ramming, but by the use of this machine six men shovelled and one man rammed.

Fig. 6 showed the 5- or 7-ton single tower crane now being adopted where sites lent themselves to this type of crane. The benefit of the single tower was that it revolved in a complete circle. Speeds had been considerably increased and the most recent types were capable of slewing round in a complete circle in rather under one minute. The counterweight of a 5-ton single tower crane consisted of nine tons of cast-iron ballast. The crane was mounted on a lattice steel tower, 10 ft. square and anything up to 120 ft. high, and had a jib 110 ft. long. The base on which the tower stood was a cross formed of three 24 in. by 12 in. single girders, one 30 ft. long, with two others half this length at right-angles. The base was fastened down by tie-rods to a specially made substantial concrete bed. Upon completion of the job it was difficult to extract these girders without cutting them up.

Fig. 7 showed the electrical traversing self-landing hoist which, on certain classes of jobs, could be used instead of a crane. It was capable of raising loads from lorries in the street and, running along the horizontal joist, depositing them inside the job. The lecturer also drew attention to another conveying device shown on this slide, namely, the masons' runway. Running along the flanges of the joists one saw on both faces of the building were wheeled blocks from which were suspended endless tackle. This constituted a very handy method of transporting blocks of worked stone short distances to their proper positions, and setting them.

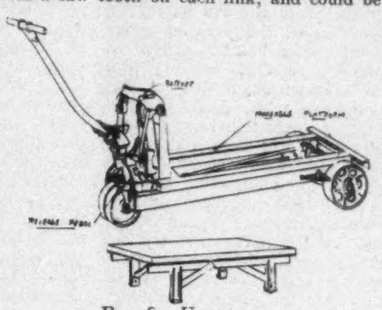


FIG. 8.—UNLOADED.

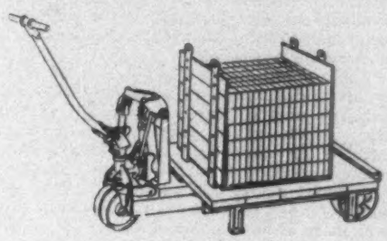


FIG. 9.—LOADED UP.

30-CWT. HAND TRUCK, WITH RAISING AND LOWERING PLATFORM.

Fig. 8 showed a 30-cwt. hand truck with raising and lowering platform. This formed a very convenient method of transporting materials from the point of delivery to the foot of the hoist, and from the head of the hoist to exactly where they were required on the job. On to a low platform, such as shown at the bottom, blocks of stone, bricks in brick-skips, sand and other loose material in crane-skips, were deposited. The platform had sufficient clearance from the ground to enable the truck to be pushed underneath it, when, by hydraulic pressure actuated by a pumping motion of the large handle, the platform, with its load, could be raised clear of the ground ready to be wheeled away as shown in Fig. 9. An advantage of this method was that vehicles could be immediately unloaded on to these little platforms without waiting for either the trucks or the hoist to be disengaged.

FIG. 10.—ELECTRIC-DRIVEN ROTARY-DISC CLEANER.

Fig. 10 showed a little tool for cleaning down stonework or concrete surfaces; it consisted of a rotary disc operated by a flexible shaft connected to the electric power.

Proceeding, the lecturer said there were some other aspects of the question to consider, and they must be thought about by those who desired to see the cost of building made less by means of mechanisation. More than ever to-day was the sub-contractor being used. A new type had come into existence, "the nominated sub-contractor," and the rea-

son for his existence was that specialisation was the order of the day. He had a very great admiration for some of these sub-contractors, and builders as well as quantity surveyors could learn a great deal from them. It should not be the policy of any contractor to stand aloof from the sub-contractor, but to work with him and help him, and a wise contractor would so make himself acquainted with the methods of a sub-contractor that he would be able to have such control over his work that with co-operation and mutual use of all available mechanical means at the site, they both combined to bring the main contract to a successful conclusion.

Another aspect of the question of more general introduction of machinery into the industry must be faced. It brought with it the problem as to how the development affected the workmen. Would it aggravate unemployment? Would it cause discontent and unrest among the workmen? With regard to the unemployment problem, this was a question of economics and was as old as the hills. Whenever new methods or machinery had been adopted the same question had arisen, and almost without exception the result had been that though there had been temporary unemployment or dislocation of labour, there had ultimately been more prosperity for that industry and more employment. All he would say about that economic side was that if the nation realised that all concerned in the industry were facing the problem of reducing costs, it was certain that more and more buildings would be erected and more men employed.

With regard to the question of how to introduction of machinery affected workmen, there was a time, a few years ago, when the teachings of the Communists seemed to have led the workmen in that industry, as well as in other industries, astray, but he was glad to say that this seemed to have passed, and he would like to say, from an intimate knowledge of the workmen engaged in the industry, that he was certain that there was no finer body of men in existence than those engaged in the building trade. Generally speaking, they were keen on their work, eager to adapt themselves to new methods, and the only thing they required was to have men directing their work who knew their job, men with personality.

He was in the works of a well-known firm of engineers recently, where a system of piece-work by results had been instituted—that was, a man was paid a definite rate for a certain piece of work on a machine, and if he did more than that piece of work in a given time he was paid a bonus in addition. Each day a statement was prepared showing the bonus earned by each man the day before, and this statement was displayed in the shop. He was told there was great competition among the workmen as to who should get most bonus for the week, *i.e.*, who should have the largest output.

He mentioned earlier (see *The Builder*, May 27) the scaffolder who did not like to use the new tubular scaffolding, and it seemed at first sight as though that point of view clashed with the point of view he had just mentioned, but, as a matter of fact, that was not so; it merely meant the working man was typically British, slow to adopt new methods, but once their value was proved, eager to adopt them, but he required guidance, leadership.

If he were giving that talk to a meeting of contractors he might be faced with a query as to the cost of purchasing all that modern machinery, but that was a matter that must be faced by those who were engaged in the industry. More machinery meant reduced cost, and the contractor or the manufacturer was aware of that.

He (the speaker) was aware of the fact that there were cranes and hoists and machinery at the various works lying idle, but, speaking generally, if a contractor were dubious as to the wisdom of mechanising his works or his contract, he would ask him to consider the appalling waste of labour if he had no machinery at all. This question of cost might be met either by some method of interchange of plant and equipment, or by hiring from one of the firms who specialised in hiring such articles. It seemed to him that if the leaders of the industry could apply their minds to that problem to ensure that, as far as possible, all machinery and equipment available could be used by the contractor who had the contract, the solution could be found.

The building industry was to-day severely handicapped in several directions, the most serious being the fact that the Government, in its desire to save money and to balance the Budget, had given an economy lead to all other public bodies, as well as to private persons, so that building programmes had either been abandoned or very much curtailed, with the result that many men, including professional men and artisans and labourers, had been thrown out of employment, and that affected in an even more serious way many other trades and industries which were dependent upon the building industry. It was a good thing to know that the leaders in the industry and the leaders in the architects' and surveyors' professions were banding themselves together to combat this economy campaign of the Government, affecting, as it did, in a remarkable manner the well-being of so large a percentage of the nation's workers.

Another serious handicap in the industry was that when it was proposed to build to-day, there were so many different by-laws and regulations in different parts of the country. There was no uniformity in methods of construction, and it frequently happened that a big development scheme was wrecked owing to the pettifogging rules of some local council, and even when plans were ultimately approved there was very often some higher authority which had to be consulted. This state of affairs was very bewildering to the layman who wanted to build, and he was glad to know that representations were being made by the leaders in the industry to try to get this state of affairs altered.

Another handicap had been that the building laws to-day were made before the use of steel and concrete became so general, and the authorities would not, or rather had not the power to, allow any variation from the official Building Act, whereas common-sense told them there was no need for the application of many clauses in the Act. It was comforting to know that steps had been taken to put this matter right, and already some amendment to the Building Act was being made. But these were difficulties a contractor could not control beyond doing his best in varying ways to get them removed, but he could, and he must, so improve his method of building that he could prove he was doing his part in bringing his methods up to date.

We did not know what further developments would take place in design and methods of construction in a few years' time, but we did know, if we gave our minds to them, what were the problems to be faced to-day. Who could tell what the future had in store for us? We were in a state of transition.

It was, however, a good thing for the industry that to-day we were seeking the light, that many who were engaged in it were endeavouring to do all in their power to improve methods of construction both in design and by well-thought-out uses of adequate machinery. The urgent need in the industry was for real leaders, men of practical experience, men of vision, not necessarily super-men, but men who thought ahead, men with personality, who could—by organising labour costs, working in friendly co-operation with sub-contractors, studying the latest developments of machinery and methods of construction—be masters of their craft, just as much as in another way were the master builders in bygone times, but who at the same time so organised the conduct of their businesses that the minimum of labour was spent for the maximum of output. If the quantity surveyors and the contractors worked together as pioneers in a movement to reduce the costs and shorten time, he was convinced it would bring nearer the period when their great industry would again be flourishing.

(*Concluded.*)

ARCHITECTURE CLUB

THE TWENTY-FIRST DINNER.

The twenty-first dinner of the Architecture Club was held at Claridge's Hotel on May 26, when Mr. R. Holland-Martin presided over a large number of members and guests. Those present included Lord Gerald Wellesley, Messrs. Joseph Armitage, Gilbert Bayes, Cyril Carter, S. Chermayeff, Arthur J. Davis, J. H. Elder-Duncan (secretary), John Gloag, L. Rome Guthrie, C. H. James, A. B. Knapp-Fisher, Raymond McGrath, Oswald P. Milne, and S. Rowland Pierce.

The topic of the evening took the form of a discussion on the problems which face the building industry to-day, opened by Mr. R. L. Roberts (Vice-President, Institute of Builders). The problem of unemployment, he said, weighed heavily on the building industry. Everyone was sighing for a return to normality, but what, it might be asked, was the normal state of the building trade? Those times when the pound was worth twenty shillings, and builders sat in their offices waiting for work to come in—which it always did—would never come back. To-day, in their place, 37 per cent. of the building industry were unemployed. The remedy lay in our own hands, for it was obvious that no help could be expected from the Government. It had been suggested that the industry might get some help through advertisement, but, sweet though the latter's uses might be, he doubted whether it could be applied to the building trades. Yet the potential demand for new buildings and the reconstruction of old buildings was enormous, and he would suggest that the only method of stimulating that demand was through co-operation of architect, surveyor, builder and operative directed towards reducing cost. The advantages of organisation upon scientific lines had been stressed, but although leading architects and builders had adopted the Time and Progress schedule, the rank and file of the industry were lagging behind, with the result that the public, who wanted to build, put up with their old factories and shops. What could be done? The Institute of Builders were now educating their people upon scientific lines. Dare he suggest that architects also should make the first plank in their educational system the need for thinking ahead in even the smallest contract? The architect, as the one in touch with the owners, should use his influence to get them to make up their mind. In thirty-five years of the building industry he had never known the old penalty clause put into force—circumstances beyond control always being pleaded—a fact largely due to the owner who never knew his own mind. The building industry, as a first charge upon the industry of the country, had a responsibility to reduce building costs, thus not only helping industry generally, but making building more remunerative to themselves.

Mr. G. Grey Wornum, F.R.I.B.A., prefaced his remarks by saying that someone had given him a very useful defensive phrase regarding his design for the R.I.B.A. New Premises Competition. "It is better to be over-grilled than half-baked." He believed that the problem of the industry would be helped by the newly-formed Building Centre, which was the architect's effort to gain the public's interest in building. One method would be by organising tours to see new buildings, a plan which had been very successful in Germany.

Mr. F. E. Towndrow, A.R.I.B.A., said our buildings were far too expensive, and, with a falling price level, either our buildings would have to fall in price or the industry would suffer. Building was a charge on all industry. We had only to look at the principal streets in London to see large buildings standing empty. We still thought of building in terms of hundreds of years: we ought to build for a lesser period. Another extraordinary thing was that to-day we had two million men doing nothing and being paid

for it. It should be practicable to get something for those men to do to-day. Why could we not put our workshops in order, with this potential man-power and the materials lying in the earth?

Mr. SYDNEY WALTON suggested that one part of the problem was: how could the shyness of the general public to consult architects be overcome? The Chartered Surveyors had published a book on "The Work of the Chartered Surveyor," with a foreword by Mr. Winston Churchill. In such works it was necessary to assume the public's complete ignorance, a fact for which architects should blame themselves because of their poor educational efforts.

Mr. ALISTER G. MACDONALD, A.R.I.B.A., said that only architects could give the people the beauty for which they searched. The Government could not help the building industry, which need not expect to be bolstered up unless it showed signs that it was a paying proposition. One direction by which the industry might be made to pay was by organisation. As one example, he had seen in America how, when the steelwork erectors had finished, the next man put on the job was the plumber. In England, the plumber was the man who came to pull down our walls to insert pipes which should have been allowed for in the drawings. Two things the architects could do were, first, to put more information on their drawings so that builders could go on without delay, and, second, to impress on clients that they, as architects, were people who knew the building trade, and, as such, were men whose judgment could be trusted. When the industry had put their house in order, then they could go to the Government for help.

Sir HAROLD HARTLEY said the way the building industry had faced up to the problem and had satisfied the needs of the big commercial undertakings—by stripping off all ornament and trusting to the basis of the design—was very satisfactory.

Mr. F. R. YERBURY gave as his opinion that the real difficulty with building and architecture was that the whole subject had been wrapped up in mystery in such a way as to hide it from the public. To stimulate the demand for new building, the public should be shown that there was no mystery: they should be taught to know the difference between good building and bad, good bricks and bad bricks, so that every member could say that he knew what he wanted. The aloofness of the architect had done more harm than anything else, for architecture was an ordinary, everyday affair, and the public should realise it.

Mr. NOEL BARKER said that the building industry had never done any publicity, and, in fact, had checked publicity in every possible way. As one suggestion, he thought that some publication might be issued to indicate to factory owners how good planning led to greater efficiency and lower costs of maintenance.

Mr. G. WOOD said that if the Government, instead of concentrating on what the foreigner wanted, had concentrated on the home market, it would have done much more to encourage the putting of money into bricks and mortar.

The PRESIDENT, in closing the discussion, suggested that, in the present depressed period, one of the things that the architect could best do was to go about instructing building owners; they were only too willing to learn. If architects were to go about the country giving lectures on how to read plans, they would get a splendid response. Two other points were, first, that it was a mistake that there was no bureau where members of the public could turn up an architect's record: second, that it should be a point that architects should sign their buildings.

An Alabaster Carving for the Tate.

The Tate Gallery has decided to accept, from an anonymous donor, the gift of the alabaster carving "The Swan," by Mr. Maurice Lambert, for the permanent collection at Millbank.

CHARTERED SURVEYORS' INSTITUTION

Intermediate Examination.

FOLLOWING upon the publication in our last issue of the names of the successful finalists and Scottish candidates in the Chartered Surveyors' Examination, we now give the names of the following candidates in the Professional Intermediate Examination, 1932, who have satisfied the Examiners:—

PARTS I AND II.

STUDENTS.

R. F. Adlam, Bristol.
V. S. Amsden, Wallington.
J. V. C. Anthony, Bedford.
G. H. Ashenden, Gravesend.
R. W. Aynsley, Stoke Newington.
R. R. Badley, Anfield.
J. H. Bailey, Streatham.
T. H. B. Baverstock, Godalming.
G. T. Bentley, Esher.
R. L. Biddle, Enfield.
R. Bigg, Fovant.
T. E. Booth, Southport.
G. F. Bray, Keynsham.
Miss F. M. Brian, Rotherham.
K. H. Brill, Templecombe.
H. J. Cannon, Hemel Hempstead.
E. J. Chapple, St. Ives.
S. O. Clark, Cardiff.
G. Clarke, Bridport.
H. P. Crowhurst, Eastbourne.
J. R. Davies, Swansea.
D. Denton-Cox, Mablethorpe.
C. S. Downer, New Southgate.
G. L. Downing, Kingston-on-Thames.
J. W. Draper, Enfield.
J. Drinkwater, Dalton-in-Furness.
R. A. Emmerson, Sunderland.
A. F. Evans, Hessle.
N. S. Farrow, Golders Green.
L. W. Freeman, Brockley.
W. J. Frost, Beaconsfield.
J. Gibbins, Uxbridge.
A. H. Gold, Leamington Spa.
W. S. Goodbody, Bristol (Special Prize).
J. L. Goodman, Taunton.
J. L. C. Gould, Parkstone.
J. I. Hamilton, Cockfosters.
W. T. E. Hamilton, Coventry.
J. B. S. Harris, Appleby.
W. G. J. Holt, Brighton.
G. Hooper, Redruth (Penfold Silver Medal and Institution Prize).
J. F. Jackson, Wirral.
N. Jacobs, N.1.
N. D. G. James, Warwick.
G. M. Jefferis, Beckenham.
H. Jellings, Cardiff.
V. Jenkins, Coventry.
W. Johnson, Huddersfield.
G. W. Jones, Haverfordwest.
E. S. Jubb, Manchester.
E. L. Judson, Buxton.
H. Kenham, Manor Park.
E. D. Knight, Brighton.
G. H. Lambourn, Barking.
T. M. Larkin, Derby.
F. Le Breton, Bootle.
J. R. Lesley, Tisbury.
F. W. C. Mackmin, Coulsdon.
J. E. McRither, New Barnet.
F. P. Manser, Southfields.
J. A. Meschini, Golders Green.
S. G. N. Mitchell, Nottingham.
A. Morgan, Newton Abbott.
E. W. Muggleston, Nottingham.
C. L. Murray, Monkseaton.
P. G. Myers, Brighton.
D. W. Nunn, N.W.10.
B. M. Oliver, Ovingham-on-Tyne.
E. H. Palmer, Thetford.
C. E. Parker, Lichfield.
D. C. W. Piercy, Mill Hill.
R. W. P. Quirk, Brynmawr.
J. Radcliffe, Wylde Green.
H. J. Rees, Orpington.
G. L. Robinson, Biggleswade.
A. G. Robottom, West Bromwich.
W. C. Rogers, Swansea.
J. A. Rothery, Wallasey.
G. E. G. Smith, Moseley.
E. S. Spriggs, Sanderstead.
A. H. Stafford, Sunderland.
L. J. F. Stone, Acton.
H. A. Stonehouse, West Hartlepool.
F. T. Symes, N. Harrow.
E. C. Tipple, Halifax.
B. M. R. Turner, Dorking.
H. H. Wagstaff, S. Croydon.
C. A. Waller, Penn.
D. Watson, Rawdon.
G. K. Weller, Weston-super-Mare.
H. W. Wells, Wimbledon.
J. A. White, Cambridge.
J. Whiteway, Salisbury.
F. J. M. Wicksteed, Strand.
J. R. A. Williams, Bedford.
W. Wiltshire, Epsom.
J. D. Wix, W.8.
J. W. Woods, Bolton.
E. T. Wraight, Bristol.
A. M. J. Wright, Romford.
F. Wycherley, Shrewsbury.
A. L. Yeo, South Molton.

NON-STUDENTS.

C. Abrahams, Blackpool.
D. W. Aldred, Southport.
R. A. H. Allen, Halifax.
T. A. P. Barker, Liverpool.
E. Barnard, N.W.9.
R. F. Barton, King's Lynn.
A. H. Beal, Wooburn Green.
J. M. Berncastle, Whyteleafe.
A. A. Bjorkman, Johannesburg, S. Africa.
H. H. Brittle, Nottingham.
H. J. R. Broadbent, S.W.5.
K. J. W. Brown, Shortlands.
S. G. Calcutt, Edenbridge.
R. H. Capron, Oundle.
H. Cartwright, Dudley.
G. H. Clegg, Chester.
E. J. Collings, Brixton Hill.
B. J. Collins, Streatham.
R. Cordingley, Ashton-under-Lyne.
E. Desmond-Smith, Cape, South Africa.
F. W. M. Drew, Exeter.
W. G. Edwards, S.W.16.
S. Elgar, Hounslow (Constructive and Working Drawings Prize).
T. N. Elston, Liverpool.
R. M. H. Evans, Bridgnorth.
J. H. Evins, Prestwich.
G. T. W. Fairbrass, Plumstead.
E. L. Foster, Paddington.
D. H. Francis, Wakefield.
J. Furness, Shrewsbury.
J. R. Goldsmith, Streatham Hill.
E. G. Good, N.7.
C. M. Hayman, Banstead.
J. Holland, Blackpool.
D. E. Horton, Balham.
M. A. Hudson, Redcar.
E. T. Hughes, Clapham.
R. A. F. Inglis, Bristol.
D. Isaac, Swansea.
T. H. L. Jones, Caernarvon.
T. W. Jones, Swansea.
A. H. Killick, Winchester.
S. L. Kramer, Southend-on-Sea.
S. Kumarasingham, Colombo, Ceylon.
W. N. D. Lang, Gerrards Cross.
G. A. Lawson, Potters Bar.
E. G. Lister, Herne Hill.
F. N. Lowe, Duffield.
R. H. Lowries, Golders Green.
E. C. Marchant, Hove.
H. C. Marsh, Wigan.
K. C. H. Martin, Bury St. Edmunds.
K. T. Maxwell, Ealing.
R. C. Mense, Lewisham.
A. Molony, Nottingham.
D. P. Nicholls, Ruislip.
J. G. Nicholson, Barry.
A. Noble, S.W.1 (Driver (Part II) Prize and Quantities Prize).
H. B. Parks, Putney.
J. A. Parks, Carlisle.
A. M. Paterson, Birkenhead.
P. J. Paul, Exeter.
R. W. Peerless, Brighton.
D. G. Peters, Plymouth.
W. W. Phillips, Southall.
J. L. Powell, Devizes.
A. W. Randle, Potters Bar.
F. A. Richardson, Chapel Allerton.
G. C. Scrivener, Brentwood.
W. R. Shepherd, East Sheen.
T. Sibthorp, Streatham.
W. A. Smith, N.12.
J. H. Snellgrove, Stroud Green.
A. E. Steevens, High Wycombe.
K. P. P. Stewart, West Clandon.
F. Stickland, Birmingham.
C. J. Sweeney, S.E.26.
Miss I. S. Taylor, S.W.19.
S. S. Thomas, Liverpool.
B. F. Tite, Wakefield.
J. P. Tolhurst, Tunbridge Wells.
C. A. C. Turner, Brentwood.
D. C. G. Waring, Cricklewood.
B. E. Warren, Clapham.
D. E. Waterman, Dartford.
P. G. St. G. Watkins, Bangor.
W. J. Watson, N.W.10.
K. A. Webb, Streatham.
A. G. H. Webster, Rainhill.
J. H. West, Sheffield.
W. H. Wheeldon, Belper.
G. Whitehead, Bletchley.
J. C. Williams, West Byfleet.
P. T. Williams, Clapham Park.
W. E. Wills, Wembley.
R. Winter, Bedford Park.
Miss D. M. B. Wood, Shrewsbury.

PART I.

STUDENTS.

D. O. Allen, Beaconsfield.
K. A. Allen, Sidcup.
W. J. Anderson, Hurlingham.
J. F. A. Anderton, West Harrow.
N. W. Anscombe, Harpenden.
J. G. R. Austin, Caledonian Road.
H. Ayres, Ealing.
P. R. Ayris, Croydon.
J. C. Backhouse, Carnforth.
C. J. Bacon, Chelmsford.
T. A. L. Banks, Bournemouth.
W. Barnes, Sunderland.
K. Barr, Redhill.
A. G. Barton, Herne Bay.
A. R. Batchelor, E.6.
G. F. Bateman, West Drayton.
D. W. Bates, Liverpool.
L. M. Beattie, Bebington.
R. W. Beazley, Eynsham.
A. R. Belcher, Redland.
D. H. Berg, Crouch End.
J. R. Bernasconi, Newcastle-upon-Tyne.
K. V. Biggs, Ilford.
D. Bilham, Wanstead.
W. J. G. Black, Isle of Wight.
W. P. J. Bland, Acton.
G. L. Bonthron, Golders Green.
G. H. Bradbury, Rotherham.
H. J. Bradley, Mitcham.
A. E. Bridger, Guildford.
C. J. Briggs, Rochester.
F. H. Brill, Minehead.
H. S. Brinson, Caerphilly.
B. R. Broadway, South Norwood.
R. E. Brooks, Hildenborough.
L. W. F. Brown, Harrow.
W. W. Brown, Honor Oak.
N. H. Burnett, Doncaster.
D. G. Burrell, Harlesden.
H. W. Bushell, Richmond.
F. H. Butler, Kings Norton.
P. H. Bywaters, Watford.
R. C. P. Cardell, Bournemouth.
A. R. C. Carter, Huntingdon.
L. H. Caston, Ilford.
A. C. Chalcraft, Guildford.
G. W. Chambers, Cardiff.
K. M. Chatterley, Evesham.
E. H. Chitty, Hanwell.
D. N. Clark, Gt. Bookham.
K. A. Clark, Northumberland.
J. A. Clements, Poole.
R. J. W. Clough, W.4.
T. S. Colliver, Llanelly.
G. W. R. Cooper, Brixton.
J. H. Cooper, Gillingham.
F. L. Copping, Tooting.
J. E. J. Cressy, Heavitree.
J. M. Darby, Lewisham.
D. F. Dauncey, Wembley.
A. W. Davies, Welshpool.
A. G. Dean, E.1.
B. B. De Kantzow, Shortlands.
W. B. Denison, Hassocks.
J. R. Dixon, Dover.
O. M. Dixon, St. Albans.
C. A. Duguid, Reading.
J. H. L. Dunster, Ilminster.
A. A. Dykes, Welwyn.
T. Eady, Hull.
J. E. Early, S.W.11.
C. W. Eaves, Forest Gate.
R. A. Edmunds, Leighton Buzzard.
G. Edwards, Wavertree.
G. D. R. Ellson, Richmond.
J. Emery, Houghton-le-Spring.
G. B. Enefer, Guildford.
J. A. R. Evans, Handsworth.
M. B. Evans, S.W.1.
L. H. Fineman, Holborn.
W. G. Fletcher, Stourbridge.
C. J. Forestier-Walker, Newport.
R. H. Fowler, S.W.12.
H. J. Frank, Whitley Bay.
D. A. Gauntlett, Cosham.
C. S. Gerrett, Upton Park.
H. E. Gilby, Biggleswade.
A. B. Goddard, Wolverhampton.
A. T. Godfrey, Plumstead.
G. E. O'N. B. Godfrey, S.W.1.
R. B. Gooch, Maidstone.
G. F. Goodchild, S.W.17.
S. Gore, Stamford Hill.
J. F. Gornall, Bradford-on-Avon.
R. G. Grant, Purley.
A. E. C. Green, Winchmore Hill.
J. A. Green, West Drayton.
H. C. Grenyer, Beckenham.
G. W. A. Gurney, Tooting.
W. P. Hall, Norfolk.
B. C. Harman, High Wycombe.
F. K. Harms, S.W.17.
F. Harris, Grantham.
H. C. Harris, Walthamstow.
J. L. G. Hartley, Purley.
T. F. Hassell, Colliers Wood.
J. C. Hawkes, Esher.
I. Hodges, Swansea.
S. D. Hogwood, Ramsgate.
R. E. Holdom, Watford.
D. H. Holmes, Ealing.
F. C. Honey, Walthamstow.
A. L. Hopkin, Stoke-on-Trent.
T. T. Howe, Kirkstall.
J. G. Hudson, South Africa.
J. B. Hunt, Bicester.
F. Hyams, E.9.
B. A. C. Hymas, Tunbridge Wells.
T. Isaac, Maesteg.
J. G. Jackson, Dudley.
J. W. A. P. James, Bangor.
P. Johnson, Wigan.
H. W. Jones, Exmouth.
C. J. Leigh-Hunt, Durban, S. Africa.
A. L. Letts, Thanet.
R. K. Lewis, Port Talbot.
C. G. Libby, Cheam, Surrey.
G. W. Kay, Edmonton.
D. H. Keay, Twickenham.
C. Kelvin-Smith, Bristol.
R. F. Kent, Winchester.
P. J. Kerr, Rawdon.
F. B. D. Kirkby, S.W.11.
M. W. G. Knapman, Paignton.
A. Latham, St. Helens.
S. Lazarus, Walthamstow.
J. Leaning, N.W.11.
J. M. Liddle, Bridlington.
R. P. Lloyd, Anglesey.
R. C. McKenzie, Addiscombe.
C. A. McPherson, Palmers Green.

W. H. Maddock, Welshpool.
G. R. Mager, Caversham.
M. J. Mansell, Croydon.
J. H. Martin, St. Albans.
W. H. Mason, Brighton.
D. P. H. J. Matthews, Plymouth.
S. F. Mill, Sunninghill.
E. M. Mitchell, Hyde Park.
K. N. Mitchell, Northwood.
A. D. Mountney, Cardiff.
R. J. Nicholls, Dunmow.
P. North, High Wycombe.
T. F. O'Connor, Leicester.
J. G. Osborne, Thames Ditton.
W. E. Owen, Anglesey.
F. Parker, Chiswick.
R. A. Patrick, W.1.
L. W. Payne, Penge.
J. D. Peake, Wood Green.
F. C. Pearce, Sevenoaks.
D. W. Pearch, Hastings.
G. H. Pedrick, Topsham.
C. G. Percy-Hardman, Exeter.
H. E. J. Phillips, Biggleswade.
W. M. Pipe, Eastbourne.
B. S. Porter, St. Albans.
P. T. Powell, Norbury.
A. C. Quarmby, Thornton Heath.
J. Rainer, Purley.
W. E. Raven, Palmers Green.
W. P. Rees, Hoylake.
R. T. Rickett, Golders Green.
D. A. Rider, N.W.11.
J. O. N. Riley, Plymouth.
A. N. Robinson, Haywards Heath.
J. F. Robinson, Bedford.
J. P. Robinson, Keynsham.
C. S. Rogers, Southampton.
J. E. Rowell, W.2.
M. T. Rowland, Hornsey.
B. Ruddock, Purley.
R. T. Russell, Twickenham.
J. D. Russell-Davis, E.C.4.
L. C. W. Rutter, Hornsey.
E. F. Sall, Bognor Regis.
J. Sample, Morpeth.
A. B. Samuel, Hampstead.
K. M. Sanders, Kings Avenue.
R. L. Scears, Ealing.
L. Segal, Lambeth.
D. S. Segar, Richmond.
S. A. Settle, Barking.
K. G. Sharp, Dover.
H. G. Shepherd, Langley, Bucks.
A. J. Shingler, Romford.
B. J. Shipley, Leeds.
J. M. Siegenberg, Palmers Green.
L. R. Skeeles, Leytonstone.
M. H. Slack, Birmingham.
A. F. C. L. Smith, Putney.
A. K. Smith, Hull.
S. H. Snell, Derby.
G. M. Snowden, Hampstead.
F. N. Sparkes, Altrincham.
T. Steers, Elland.
S. Stollard, Lancaster.
E. W. Sumsion, Letchworth.
J. C. G. Sutton, Hale.
B. J. Sweeney, Urmston.
R. S. Sweeney, Portsmouth.
S. G. E. Tett, Gunnersbury.
R. M. G. Thomas, Swansea.
D. T. C. Thompson, Ealing.
D. G. Thorne, Leytonstone.
R. C. Thursfield, Sunderland.
A. J. C. Tigg, Herne Hill.
E. R. Timothy, Cardiff.
A. D. Tisdall, Acton.
H. C. Trevail, Truro.
E. H. Trollope, Godalming.
J. Tulloch, Shrewsbury.
G. C. W. Twyman, Fulham.
E. Upton-Kemp, Thornton Heath.
R. M. Vickery, Clapham.
F. R. Waghorn, St. Albans.
H. S. Walker, Minehead.
F. W. Wall, Ealing.
H. Walton, Shrewsbury.
J. H. Wells, Catford.
H. N. Welsh, North Shields.
R. S. West, Harrogate.
A. S. Whiddington, Northwood.
D. E. White, Gunnersbury.
W. C. E. White, East Croydon.
R. Whittaker, Accrington.
A. R. Williams, Caernarvon.
H. L. G. Williams, Uxbridge.
A. L. Willoughby, Bath.
F. Wilson, Hucknall.
J. H. Wilson, Euston Stn.
T. A. Wing, Brighton.
J. Worthington, Preston.
H. J. P. Yeaxlee, N.20.
D. D. Yeoman, Barnet.
W. B. Young, Epsom.

Irish Candidates.

Miss M. I. Fairweather, Dublin.
J. E. Green, Dublin.
W. J. McKernan, Blackrock.
R. J. Megran, Belfast.

NON-STUDENTS.

G. Airey, Lancaster.
S. Axtell, West Byfleet.
A. J. R. Bailey, Shepherds Bush.
L. A. Balsom, Strand, W.C.2.
K. M. Banks, Stratford-on-Avon.
G. Bartlett, Plymouth.
S. J. Bayes, Crouch End.
W. D. Bedford, Huddersfield.
W. N. Bence, Bath.
C. E. Berry, Bolton.
H. F. Betts, Harrow.
M. P. Bevan, Ammanford.
V. R. Billing, N.W.1.
H. C. Bouttell, Forest Gate.
N. P. Bregazzi, Dorking.
T. W. R. Bridson, Princes Risborough.
T. Broad, Wirral.
A. L. Brooks, Bath.
W. R. A. Brooks, Norwood.
G. M. Brunning, Raynes Park.
G. R. Buchanan, Tooting.
A. Burnand, Kensington.
L. S. Burnett, Southampton.
E. M. Cairns, Kensington.
R. K. Carrell, Havant.
R. C. F. Chawner, Kingston-on-Thames.
T. Clancy, Palmers Green.
G. C. Clark, Guildford.
T. S. Clarke, Soham.
C. B. Cooke, W.2.
W. M. Cookson, Bramhope.
W. H. Cottam, Manchester.
R. B. Crawshaw, Chesterfield.
W. Cryer, Doncaster.
Miss D. A. Dallyn, W.1.
J. C. F. Davies, Swansea.
J. G. Dempsey, Bootle.
C. V. Edis, Harrow.
W. F. Edwards, Swansea.
A. Fairley, Brixton.
J. R. Farrington, Herne Hill.
R. Fereday, Dudley.
D. G. Ford, S.E.23.
R. L. Fraquet, Chigwell.
C. W. Freeman, Northolt.
H. A. Gardner, New Southgate.
H. J. Garrett, Bristol.
L. S. Gillard, N.2.
H. H. Gillingham, Guildford.
D. F. Gleed, Streatham.
A. J. Glegg, Belmont.
R. E. Goodsell, Shirley.
W. E. M. Gough, N.W.6.
D. H. Gravett, W.C.2.
J. Greenwood, Knaresborough.
H. D. W. Griffith, Llanrwst.
J. F. K. Griffiths, Preston.
J. C. Harris, Northampton.
C. J. Harrison, Northwick Park.
P. L. Hawkins, King's Lynn.
C. G. Hearn, Southampton.
R. H. Heath, Ealing.
A. W. B. Herbert, Maida Vale.
P. Hicks (Jr.), Bridlington.
R. G. Hilliard, Chigwell.
W. Hindle, Blackpool.
R. T. Holdway, Kidderminster.
W. J. Holloway, W.C.1.
J. L. Howarth, Christchurch.
J. D. Hunt, Putney.
F. G. Ing, Long Crendon.
M. A. Isard, Dorking.
E. D. C. Jackson, Chingford.
E. Jordan, Leeds.
D. C. Keating, Alverstoke.
R. G. King, Littlehampton.
T. Knowles, Openshaw.
J. F. Lake, Theale.
T. H. Lambie, Mill Hill.
H. B. Lapworth, Sutton.
E. G. Leech, Mill Hill.
W. Legge, Leamington Spa.
G. J. Leon, Hampstead.
P. E. Loeffler, Warwick.
A. G. Lord, Leamington Spa.
D. McVinnie, Prescot.
R. S. Malloch, Monkseaton.
P. H. Mann, Reading.
D. C. Matthews, Esher.
T. B. Maughan, Ripon.
A. Mellor, Wakefield.
J. Miller, Wolverhampton.
D. F. Mills, Weston-super-Mare.
N. Murray, Workington, Cumberland.
R. E. Newton, Darlington.
E. D. Nightingale, Ipswich.
R. L. Owen, Addlestone.
E. G. Paige, Reigate.
F. E. Parker, Lincoln.
A. A. Parkin, Brondesbury.
F. H. Parsons, Gloucester.
G. W. Peek, Hornsey.
V. A. Perkins, Nottingham.
H. F. Perks, Sheffield.
P. R. Phillips, Wimbledon.
J. F. Pickering, Durham.
S. L. Porter, Plumstead.
E. F. Pressey, West Mersea.
D. F. Pryer, Tunbridge Wells.
E. F. Randerson, Hornsey.
G. F. Ratcliffe, Sale.
E. E. Rathmell, Headingley.
R. C. Rawlinson, Muswell Hill.
W. T. J. Rhind, Tottenham.
D. S. Richards, Cardiff.
C. F. Richardson, Crouch End.
E. G. Righton, Evesham.
H. H. Robinson, Birmingham.
T. A. Robinson, Low Fell.
L. F. Rose, Crouch End.
E. F. M. Ryde, Woking.
B. P. Salt, Buxton.
A. G. Sandford, Sheffield.
C. E. Sayers, Guildford.
W. R. de S. Senaratne, Colombo.
R. J. C. Sheppard, Reading.
F. Simms, Boxmoor.
B. C. Smith, Grays.
E. Smith, Surbiton.
H. Smith, Withington.
N. O. Smith, Norbury.
J. F. Smithies, Kendal.
H. E. Snell, Wylde Green.
W. A. Stewart, Barton-on-Sea.
C. W. Stothert, Ealing.
E. H. Strouts, Bromley.
H. B. Sully, Hanwell.
D. J. Tanner, Hornsey.
A. O'B. Thompson, Maidenhead.
W. K. Thomson, Cape Town, S. Africa.
L. H. Thrift, Chelmsford.
E. W. Todhunter, Grays.
R. F. Trimble, Norbury.
P. D. Tuckett, Kensington.
H. W. Turner, Sittingbourne.
K. P. Vickery, Clapham.
P. S. Waddington, Southall.
C. H. Waldram, Edgware.
C. A. Wales, Brentwood.
W. A. Walton, Southampton.
J. B. White, Ashtead.
R. I. Williams, S.E.5.
A. C. Williamson, Ealing.
G. Willmot, Edgbaston.
J. C. Wilson, Sheffield.
F. E. Winterton, Cambridge.
F. E. Woodcock, Norwich.
G. E. Young, Regent's Park.

Irish Candidates.

J. F. Birthistle, Wexford.
J. H. O'Hanlon, Blackrock.

PART II ONLY.

STUDENTS.

A. T. Hall, Bristol. M. C. F. Hall, Surbiton.

NON-STUDENTS.

T. J. Dron, Southend-on-Sea.
A. A. Hall, Clapham.
T. Jones, Llanelly.
W. H. Owen, South Wales.
I. Roberts, Caernarvon.
Miss D. Rouse, Leicester.

THE WEEK IN PARLIAMENT

WESTMINSTER, Wednesday.

Rural Housing.

Mr. Hopkin Morris asked the Minister of Health whether he could state the total number of houses that would be erected in agricultural parishes under the provisions of the Housing (Rural Authorities) Act, 1931.

Sir E. Hilton Young said that it was not yet possible to state the number of houses that would be erected under the Act; consideration of a few applications had been deferred pending the submission of further information. Up to the present it had been decided to entertain applications in respect of 1,904 houses for the agricultural population.

Flats Let.

Mr. McEntee asked the Minister of Health if he would state the number of houses or flats to let at rents of 10s. weekly or below that were being erected by local authorities; the number of houses or flats of this type erected since November 1, 1931; and the number of schemes and total of houses provided in such schemes at present under consideration by the Ministry.

Mr. Brown said that the exact particulars asked for were not available, but the number of houses and flats of the non-parlour type, the erection of which had been authorised since November 1 last, was approximately 21,000, and the rents of these houses should generally not exceed 10s. a week.

Sir E. Hilton Young informed Mr. Groves that he had received resolutions declaring 417 areas in England and Wales, the clearance of which involved the demolition of approximately 14,000 houses, to be clearance areas under the Housing Act, 1930. It was anticipated that houses sufficient for the accommodation of 68,000 persons would be provided.

Ministry of Health Staff.

Mr. Lambert asked the Minister of Health what were the total numbers engaged at the Ministry on housing and town planning at the latest available date in 1932?

Sir E. Hilton Young said that the number so engaged at the present date was 91.

INQUIRY BUREAU

We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.

We do not undertake to reply to inquiries concerning proprietary materials.—ED.

QUESTION.

Central Heating Flue.

SIR,—It is proposed to apply central heating to warehouse premises in the City consisting of a number of old buildings connected by party wall openings. The total cubic space to be heated is a million cubic feet, and two large boilers (about 140 sq. ft. heating surface each) will be required, so that it will be necessary to trim floors and carry up a special flue.

Can any of your correspondents advise from experience on the following points?

(1) Should the new flue be bonded to the existing brickwork at every course?

(2) Is it usually found that the fire-brick lining is best fixed with a space between it and the brickwork, as for furnace shafts, or is this unnecessary in domestic hot water work?

(3) Does the employment of oil fuel apparatus require any variation in the treatment of the inside of the flue owing to the production of special gases and fumes?

(4) Would the construction of such a flue follow the methods applicable to furnace or factory chimneys? "REXOR."

ANSWERS.

Darkening Terra Cotta Tiles.

[ANSWER TO "TILES," MAY 27.]

SIR,—The best method is to soak in sooty water, taking care to use a weak solution first and add strength until the required tone is arrived at. DOPE.

Hollow Bricks.

[ANSWER TO "W. J. W.," MAY 27.]

SIR,—Hollow bricks of the pressed variety are marketed and extensively used in London for inside and partition work. They do not conform to the requirements for the thickness of outside walls unless built with an additional thickness to make the prescribed amount exclusive of cavity. CONSTRUCTION.

Firs and Deals.

[ANSWER TO "STUDENT," MAY 27.]

SIR,—Soft woods are usually termed pines in America, and usually are very much larger trees than the European firs. Baltic, Northern, Scotch and Norway firs, and red, yellow and white deals are European. Columbian, Oregon, red, yellow, Weymouth and white pines, and American and white deals are Transatlantic. TIMBER.

Stonework.

[ANSWER TO "MASON," MAY 27.]

SIR,—Working the stools is frequently left until the mullions are fixed to make a true and perfect fit, but it is not part of the process of cleaning down and should be carried out by the firm contracting to work the stone. SURVEYOR.

Crushing of Marble.

[ANSWER TO "STRUCTURE," MAY 27.]

SIR,—White Italian marble crushes under a load of just under ten tons per square inch. The margin of safety in this case appears so great as to ensure perfect safety without further calculation. In cases where the margin is closer, a calculation should be made upon Rankine's formula. STRENGTH.

Feathering.

[ANSWER TO "TECHNICAL," MAY 27.]

SIR,—Feathering is a variety of quartering, but using straight grained veneer diagonally so as to meet in a diamond. Quartering is usually with fancy figures meeting in a more ornate pattern, but the term embraces feathering also. SURFACE.

Emulsified Bitumen.

An answer to this inquiry, received from the Merchant Trading Company, has been forwarded to our correspondent.—ED.

THE BUILDING TRADE

THE LESSONS OF EXPERIENCE.—XXIII

By J. R. TAYLOR.

HOT WATER SUPPLIES FOR SMALL HOUSES—(*continued*).

Before leaving the roof space, one or two other points may be mentioned, that, though not unimportant, are frequently overlooked. On the rough sketch that accompanied last week's article it will be noted that the exhaust pipe is carried up above the cold storage cistern and is then turned down again, so that any discharge from it shall be into the cistern. Hot water engineers do not like this pipe being called an exhaust pipe or even an expansion pipe when they instal the system, for any discharge (visible) from it points to a want of balance, and they therefore call it an air pipe. But I make no pretence of being able to instruct or help qualified engineers, and the readers I wish to reach are those who know what it is to make mistakes, and therefore do not resent, and may even welcome, a hint of what it is that leads up to them. One has only to keep one's eyes open to note by the difference in colour of the slates or tiles where exhaust pipes are carried through roofs that a discharge does in fact take place through a good many of them. For a number of reasons—not the least of which is the danger of a choke resulting from frost, should the house be unoccupied for a few days in winter—it is better practice to keep this pipe within the roof space and turn it over the cistern.

If the cistern is some distance away, the discharge may be received into a funnel and be then conducted by a three-eighths galvanised pipe to the cistern, or, if more convenient, to a waste pipe of a bath or lavatory basin in a room below. Where the discharge is over a cistern the turned-down portion should be long enough to extend through the cover, but should not reach the water, as this would, of course, render it quite useless and dangerous. Some storage tanks are fitted with ball cocks that permit the water to reach too high a level, with the result that their overflows frequently drip although the ball cocks are themselves in working order. Cold water expands on being heated, and the greater the quantity of water heated and the higher the degree of heat attained the greater will be the expansion. The expansion, unless met by drawing off some of the water, must result in more space being occupied somewhere, and this has to be provided in both legs of the system. The result is that the high-water level in the cold storage tank lifts a little as the water in the cylinder grows hotter, and if the overflow is rather too low in relation to ball-controlled cold level the overflow pipe will be called upon and water will drip from it. Heating engineers dealing with greater volumes of water at a higher degree of heat provide for this by making their cold supply ball cock connection low down in deep cisterns. When carrying the dipped end of exhaust pipe through the cistern cover, it must be out of reach of the expanded water. The discharge from the end of the exhaust pipe is mixed water and steam (emulsion), and it results from the water boiling. Even in a reasonably well-balanced apparatus this boiling is not an unlikely happening when guests are entertained to a late dinner. It can, of course, be reduced by drawing off some of the hot water. But though the additional volume that water attains when heated is mainly accommodated in the cold storage cistern (because of its greater area), when steam is formed by boiling it escapes along the lines of least resistance, and this results in water being forced up the exhaust pipe, for which reason it is good practice to carry this pipe well up above the cistern before dipping down again. All piping in the roof space should be lagged and preferably by a material unattractive to insects or mice.

Stop Cocks.

The placing of stop cocks on hot water pipes other than those used for heating apparatus is usually considered from the point of view of facilitating repairs which, in my opinion, for an ordinary domestic hot water supply is a mistake. It is on record that a plumber lost his life as the result of a boiler explosion brought about by his own forgetfulness in regard to a stop cock which he had closed down and not reopened after relighting the fire. When the cylinder system first came into general use the main claim made for it as compared with the tank system was that the number of boiler explosions taking place in a given time would be much reduced because the apparatus when properly installed cannot be emptied through the service cocks. But if the circulation between boiler and cylinder can be closed down, much of this advantage is lost. There are many people to whom a piece of mechanism presents an almost irresistible temptation, and they are the joy of the working jeweller and the garage proprietor; but they should as far as possible be debarred from experimenting with the domestic hot water apparatus. As usually fitted, when the source of heat is a range with back boiler, a balance is struck with the idea of obtaining the best average performance; but the amount of heat used being variable the performance is unequal, and quite a lot of people will endeavour to improve it under a mistake as to the functions of stop cocks. Fortunately the results are not always serious, but even so it is better to be on the side of safety and to sacrifice something of convenience for the sake of making the system more nearly foolproof. If, however, it is imperative that stop cocks should be fixed on the flow and return between boiler and cylinder, then they should be of a type that will not yield to ordinary tools. A loose key is not much of a safeguard if a spanner will serve the purpose. A cap that needs a pair of pipe grips to remove it before the valve spindle can be got at is reasonably effective.

Where the cold storage tank has not a greater capacity than one hundred gallons the provision of a stop tap on it or on the cold feed to cylinder is of doubtful advantage as, if the plumber has to enter the roof space, he will do a useful thing if he suggests that while he is there the cistern should be cleaned out. But in large country houses dependent on a ram or other water-lifting device, the running off of some thousands of gallons of stored water is not to be undertaken without thought. All stop cocks should be of full way gate valve type or else of oversize. It is not a bit of use putting in a pipe of the correct bore if it is to be choked down with an ordinary pattern screw-down valve, for the pipe can convey no more water than will pass through the valve.

Emptying Cocks.

The emptying cock placed on the hot water system should never be so positioned that a vessel may be filled from it. Provided the floor and/or skirtings are not of wood, the best position for it is within three inches of the floor line, and it should then be fitted with a hose union nozzle and require the application of a tool. But if the floor or skirtings are of wood and the tap drips very slightly, ideal conditions are created for the development of dry rot. This is one of the typical difficulties that beset the architect and builder: flying from one danger they are apt to run into a number of others. It has been said that some day in the not too far distant future all these troubles will disappear, because all architects will be scientists. I rather doubt it, and consider that, though all the necessary knowledge will be contained in the books, the technical writers will still have to go on quarrying it out and testing it by their own experience, for to know all that there is to know about building materials and methods, were it all written down, would still require more than a lifetime of study. Even should the scientists some day give us a new metal that is both a non-conductor of heat and transparent, somebody will still manage to make a botch with it.

One of the most violent attacks of dry rot that has come within my experience undoubtedly originated in the accidental coincidence of firewood being stored in a cylinder cupboard where a very small leak developed every time the cylinder was allowed to go cold, because the range was not in use at the week-ends. This was of such infrequent occurrence as to be thought not worth bothering about, but at last dry rot started and then got a hold in a wood skirting on a tile floor where the daily floor washing carried a little water under the bottom edge of the skirting. Right through the wall it spread, though the wall was of nine-inch work, and within a very short time all the woodwork in the adjoining room was affected. Another attack that I recall set in under a lead tray to a bath on a wooden floor, and several others could be traced to the old-fashioned lavatory basins that used to be cased in.

The Pipe Runs.

As pointed out last week, every change of direction in the conduits imposes an additional load on the apparatus, and every foot of unnecessary pipe, besides reducing the rate of delivery at the taps, reduces the heat of the water before it is delivered. Consequently not only does the client pay for the additional pipe bends, elbows and other fittings used, but he keeps on paying by reason of heat losses. It is therefore important to give some thought to the run of the pipes as well as to the positioning of the fittings they will serve. Of late years, surface-run pipes have been preferred, and where other things are equal this preference is reasonable; but where it can only be satisfied by the addition of a considerable amount of extra pipe and bends, compromise may be necessary. One thing should never be done, and that is to notch into joists for lead pipes and leave the pipes to bridge the joists without support from fillets. When this is done, sag will take place even with cold pipe, and with hot pipes the sag will continually increase as the outcome of expansion and contraction. With iron pipes the result is not so far-reaching, but though it is a practice that, from the point of view of weakening the joists, is undesirable, it may be in some cases preferred; if so, the notches should be large enough to permit the pipes to move a little when they grow a little in length under expansion and shorten a little because of contraction. This movement always takes place, and in very long lengths of pipe the hot water engineer provides for it by using roller brackets when necessary. For the same reason he wraps pipes going through brick walls and thus makes sure that they can move a little.

Lead pipes on pipe boards should be supported by continuous wooden fillets and not be left to festoon beween the clips. It is very common to find that pipes are fixed with saddle clips or hooks that clip it too tightly, and a careful scrutiny will often show that a small shaving of lead has formed or curled up on the edge of the clip. The seat of the trouble is in the looseness of the specification. Work obtained by competitive tendering cannot be carried out in a first-class manner at a third-class price, and it is on the specification or bills of quantities that the tenders are based.

(*To be continued.*)

NEW BUILDINGS IN LONDON

Acton. — RECONSTRUCTION. — The Underground Railways Co. are reconstructing buildings at Acton Town Station. The plans are by Mr. S. A. Heaps, 55, Broadway, S.W.1. Messrs. Bovis (1928), Ltd., 35, High-street, Marylebone, W.1, are the builders.

Albert Embankment. — ALTERATIONS.—Messrs. James Carmichael (Contractors), Ltd., 331, Trinity-road, S.W.18, are the builders for alterations at St. Thomas's Hospital, S.E.1. Mr. H. W. Currey, 51A, Catherine-street, S.W.1, is the architect.

Barnet.—NURSES' HOME.—The Middlesex County Council is recommended to place a contract with Messrs. John Laing and Son, Ltd., of Mill Hill, for extensions to the Nurses' Home, etc., at Middlesex County Sanatorium, Clare Hall, South Mimms, Barnet. The contract price is £8,653. Plans have been prepared by the County Architect, Mr. W. T. Curtis, F.R.I.B.A., 10, Great George-street, S.W.1. A full list of tenders will be found in our "Tenders" pages.

Burnt Oak.—EXTENSIONS.—The proprietors of the Bumper Bargain Stores, High-street, N.W., have under consideration erection of additions to showrooms and stores. The plans have been prepared by Mr. W. Newcome Wright, 164, Bishopsgate, E.C.3.

Camberwell.—CHURCH.—Mr. F. Etchells, F.R.I.B.A., 52, Davies-street, W.1, is the architect for the reconstruction of the Emmanuel Church, Camberwell-road, S.E.5. No building contracts have yet been placed for this work.

Dagenham.—RESTORATION.—For restoration work to the concert hall, after fire at the Dagenham Working Men's Club, Broad-street, Messrs. J. Hocking and Co., "Valley Works," Charlton, S.E.7, have secured, at £1,230, the contract for the work. Mr. John Bartley Farrugia, L.R.I.B.A., 46, Thomas-street, Woolwich, is the architect.

Deptford.—ADDITIONS.—Mr. A. J. Glock, 2, Southend-lane, S.E.6, is the contractor for additions at the Brunswick U.M. Church, St. John's-road and Deloraine-street. The plans are by Mr. A. J. Glock.

Deptford. — EXTENSION. — The Deptford Bridge Mills, Church-street, Deptford, are to be extended for the Associated London Flour Millers, Ltd., 66A, Fenchurch-street, E.C.3. The foundation work is being carried out by the West Rotinoff Piling and Construction Co., Regent House, Kingsway. Mr. A. R. Thompson is the company's engineer.

Ealing.—SHOWROOMS.—The Standard Wall-paper Co., Ltd., Chiswick High-road, W.4, are to have new showrooms in Uxbridge-road, W.5. The plans are by Messrs. Walter Hearn and Chuter, 13, Heathfield-terrace, Chiswick, W.4, and the builders are Messrs. Y. J. Lovell & Son, 6, Bathurst-street, Lancaster Gate.

Eltham.—HOUSES.—The Green-lane estate is to be developed for residential purposes, about 100 houses in all being projected. The plans have been prepared by Messrs. Walters and Jones, 201, High-street, Lee Green, S.E.13. The builder is Mr. G. Downs, White Horse-hill, Chislehurst.

Enfield.—STATION.—The Underground Railway Co. have placed a contract with Messrs. W. Shurmur and Sons, Ltd., Riverside Works, Upper Clapton, E.5, for new station buildings at Enfield West.

Finsbury.—PREMISES.—The Sidney Arms public house, Sidney-street, is to be rebuilt for Messrs. Mann, Crossman and Paulin, Ltd., Whitechapel-road, S.E.1.

Hammersmith.—RECONSTRUCTION.—Mr. A. E. Batzer, 36, Ebury-street, S.W.1, is the architect and Messrs. Bovis (1928), Ltd., 35, High-street, Marylebone, W.1, the builders for the reconstruction of Marks and Spencer's stores in King-street, W.6.

Hendon.—HOUSES.—The R.D.C. has recommended a tender of Messrs. S. Shaw, Ltd., 36, Glasshouse-street, W.1, to cost £3,897, for the erection of 14 houses at Little Stanmore.

Hounslow.—PAVILION.—Messrs. J. Harrison and Co., of Denmark-road, Camberwell, are the contractors for the erection of a new sports pavilion at Whitton Park, to plans prepared by Mr. E. Percy Kendall, 11, Great Turnstile, Lincoln's Inn-fields, W.C.1. The work is for Whitton Park Club House, Ltd.

Kensington.—ALTERATIONS.—Messrs. Whitbread and Co., Ltd., brewers, Chiswell-street, E.C.1, are having the "Macaulay Arms," Church-street, altered. The plans have been prepared by Mr. R. G. Muir, F.R.I.B.A., 1, Raymond Buildings, Gray's Inn, W.C.1. No building contract has yet been placed.

Lambeth. — ALTERATIONS. — Premises in Wincote-street, S.E.11, are to be altered for the North Lambeth Liberal and Radical Club. Mr. P. A. Hamilton, 69, Kennington Oval, S.E.11, is the architect. No building contracts have yet been placed.

Leytonstone.—STORES.—We understand that Messrs. F. W. Woolworth and Co., Ltd., New Bond-street, W.1, are to have new premises in the High-road, near Church-lane.

Lowndes-square.—FLATS.—Messrs. Joseph, architects, 2, Paul's Bakehouse-court, E.C.4, are applying to the L.C.C. for consent to the erection of shops and flats upon the sites of 43-44 and 54-55, Lowndes-square, S.W.

Morden.—STORES.—A departmental stores is to be erected adjacent to the Underground Station by the Royal Arsenal Co-operative Society, Ltd. The work is in the hands of the society's Building Department, and under the direction of the chief architect, Mr. S. W. Ackroyd, A.R.I.B.A., Commonwealth-buildings, Albion-road, Woolwich, S.E.18.

New Malden.—GARAGE.—A site facing the Kingston by-pass road has been sold for a motor garage and service station. The arrangements are in the hands of Messrs. Chamberlain and Willows, Moorgate, E.C.2.

Northolt. — CHURCH. — Messrs. George Baines and Son, FF.R.I.B.A., 121, Victoria-street, S.W.1, have been appointed architects for a Wesleyan Church in Church-road and Church-avenue, for the trustees. The work is to proceed at once.

Richmond.—FACTORY.—Mr. Douglas Wood, 35, Craven-street, W.C.2, is the architect for a poppy factory to be erected for the British Legion.

Southgate. — CENTRE. — For new station buildings and shopping centre, the Underground Railway Co. have placed a contract with Messrs. Bovis (1928), Ltd., 35, High-street, Marylebone, W.1.

Stratford.—PREMISES.—Messrs. J. & R. Rooff, Ltd., 695, Barking-road, E.13, have secured the contract for the new Liverpool and Friendly and Approved Societies building at 185, Romford-road, Stratford, E.15.

Streatham.—SHOPS.—New shops and flats are to be built in Streatham High-road and Mitcham-lane, S.W. Messrs. W. T. Mills and Co., 300, Streatham High-road, surveyors.

Tottenham.—PAVILION.—The U.D.C. are proposing a pavilion in Lordship recreation ground.

Twickenham.—EXTENSIONS.—The governors of the St. John's Hospital have announced that a scheme for further extensions to the hospital buildings would shortly become necessary. The architects to the hospital are Messrs. Brewer, Smith and Brewer, 11, The Green, Richmond.

Twickenham. — HOUSES — The Middlesex C.C. has accepted the tender of Messrs. E. Clark and Sons, of Melton Mowbray, at £35,865 18s., for the erection of houses on the Erncroft Estate, Twickenham, to rehouse tenants in Douglas-road, St. Margaret's.

Victoria Docks.—EXTENSIONS.—Messrs. Gelder and Kitchen, Alfred Gelder-street, Hull, are the architects for extensions to the Premier Flour Mills, for Messrs. J. Rank, Ltd., 27, Leadenhall-street, E.C.2.

Waterloo-road.—EXTENSIONS.—It is proposed, at a cost of £50,000, to extend the out-patients' department of the Royal Eye Hospital, Waterloo-road, S.E., and erect a special children's ward and a nurses' home.

Watford.—CLUB.—The tender of Messrs Clarke Bros., Fearnley-street, Watford, at £4,640, has been accepted for alterations and additions at the Conservative club, West Watford. The plans have been prepared by Mr. L. H. Kemp, A.R.I.B.A., 38, John-street, Bedford-row, W.C.1.

TREES IN STREETS

A CASE (Stillwell *v.* Windsor Corporation—*Weekly Notes*, May 28), recently heard in the Chancery Division, raised the point whether the owner of adjoining premises has any property in trees standing in the highway. The plaintiff in the action was the owner in fee simple of a property at Clewer at the junction of two roads, in which stood some pollarded lime trees, of which she claimed the ownership on the principle that the plaintiff's title to the soil *usque ad medium filum* carried with it the right to the trees, and that the dedication of the roads to the public was subject to an exception of the area occupied by the trees.

The case is at present very briefly reported, and it appears to present some curious features, for in the first instance the defendant Corporation, purporting to act under section 64 of the Highway Act, 1835, had served a notice upon the plaintiff requiring her to remove the trees, on the ground that they were a danger and obstruction to the public, but this notice was treated as ineffective by the plaintiff, who declined to obey it. This notice, if it was applicable to the case at all, would appear to have recognised some ownership by the plaintiff in the trees, but no point as to this arises in the judgment as reported, and we merely refer to it to show how the action arose. On the refusal of the plaintiff to remove the trees the defendants themselves cut down and removed three of the trees, and the plaintiff then commenced this action for an injunction. On motion the plaintiff had obtained an interim injunction, but on the motion being renewed, by consent, the motion for renewal was treated as the trial of the action.

The evidence given showed that the trees were more than 100 years old, and some of them were so diseased and decayed as to be a present source of danger to the public. It was also proved that they caused an obstruction to vehicular traffic, but the decision does not appear to have turned on these points, but to have been confined to the ownership of the trees, although the Court pointed out that even assuming that the plaintiff had a right of property in the trees, yet the defendants would have been justified in removing them, and would have had a duty to do so.

The evidence showed that the two roads in question had existed as public highways for a period to which no limit could be fixed, and therefore it must be assumed that the trees were planted in the roads either by the highway authority with the consent of the owner of the soil, or by the latter with the privity of the highway authority, and they were standing on highways over the whole width of which the public had the rights of user. But in 1920 the parish of Clewer (presumably then a rural district) had been included within the borough of Windsor, and thereupon the Court held that the effect of section 149 of the Public Health Act, which applies to urban districts, was to vest the roads in question, including those portions which were occupied by the trees, in the defendants for the purposes of the section, with the result that the plaintiff had no property in or control over the trees at all.

It is to be noticed that section 149 does not specifically mention trees; the words are: "All streets being or which at any time become highways repairable by the inhabitants at large within any urban district and the pavements, stones and other materials thereof, and all buildings, implements and other things provided for the purposes thereof shall vest in and be under the control of the urban authority"; but the section imposes penalties upon any person who without the consent of the urban authority wilfully displaces or takes up or who injures . . . the trees in any such street. The Court, however, based the present decision on the case of Coverdale *v.* Charlton (1878, 4 Q.B.D. 104), in which it was held that the local authority had such property in the soil of the road as to empower them to demise the herbage or right of pasturage thereon.

RATES OF WAGES IN THE BUILDING TRADE

AS AND FROM 1st FEBRUARY, 1932.

[Every endeavour is made to ensure accuracy, but we cannot be responsible for errors.]

	Masons.	Brick-layers.	Car-penters Joiners.	Plas-terers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Accrington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Aldershot	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Alfreton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Alnwick	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Altrincham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ashford (Kent)	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Ashington	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Ashton-under-Lyne	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Aylsham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Banbury	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Barnsley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Barnstaple	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Barrow-in-Furness	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Barry	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Basingstoke	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bath	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Berwick	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bexhill	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Birkenhead	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Birmingham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bishop Auckland	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Blackburn	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Blackpool	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bognor Regis	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Bolton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bradford-on-Avon	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/1½	11
Braintree	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Bridlington	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bromsgrove	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bromyard	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Bungay	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Burnley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Burton-on-Trent	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Bury St. Edmunds	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Buxton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Canterbury	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Cardiff	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Carlisle	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Chelmsford	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Cheltenham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Chester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chesterfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Chorley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cirencester	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Clacton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Colchester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Coventry	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Cranbrook	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Crewe	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cromer	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Darlington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Deal	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Denbigh	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Derby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Devizes	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/1½	11
Dewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Doncaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Dorchester	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Dorking	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Dovercourt	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Driffield	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Droitwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Dudley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Durham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
E.Glam.(Mon.Val.)	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Ely	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Exeter	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Exmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Fakenham	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Felixstowe	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Folkestone	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Frome	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Glossop	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Gloucester	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Godalming	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Goole	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Gosport	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Grantham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Gt. Yarmouth	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Grimsby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Guildford	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Halifax	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Harpenden	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Harrogate	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hartlepools	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Harwich	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Hastings	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Hatfield	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hednesford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Herne Bay	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Hertford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Hitchin	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hoddesdon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Holt	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Huddersfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hull	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Hunstanton	1/2½	1/2½	1/2½	1/3½	1/2½	1/2½	1/2½	11
Huntingdon	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Isle of Wight	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Keighley	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Kettering	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Kidderminster	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Kings Lynn	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Leeds	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leicester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leighton Buzzard	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Lichfield	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lincoln	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Littlehampton	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Liverpool	1/8	1/8	1/8	1/9	1/8	1/8	1/8	1/3½
Llandudno	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Llanelly	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
London—								
12 m. radius	1/7½	1/7½	1/7½	*	1/7½	1/7½	1/6½	1/2½
12-15 m. radius	1/7	1/7	1/7	*	1/7	1/7	1/6	1/2½
Loughborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lowestoft	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Macclesfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Malvern	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Manchester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Mansfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Margate	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Market Harborough	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Matlock	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Melton Constable	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Melton Mowbray	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Merthyr Tydfil	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Middlesbrough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newark	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Newbury	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Newcastle-on-Tyne	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Newcastle-u-Lyme	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
New Forest	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Newmarket	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Newport, Mon.	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Nuneaton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Oakham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Oldham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Paignton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Peterborough	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Pontypridd	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Ramsgate	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Redcar	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Redditch	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Reigate	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Retford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Ripon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Rugby	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Saffron Walden	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
St. Albans	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
St. Helens	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sawbridgeworth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Saxmundham	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
Scarborough	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/-
Sevenoaks	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/1½
Sheffield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/0½
Shrewsbury	1/5	1/5	1/5	1/5	1/5	1/5	1/5	11
Sittingbourne	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/0½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1½
Southport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
South Shields	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/-
Stevenage	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/1½
Stockport	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stockton-on-Tees	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stoke-on-Trent	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Stourbridge	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0½
Stourport	1/5	1/5	1/5	1/5	1/5	1/2½	1/2½	11
Stowmarket	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/0½
Stratford-on-Avon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/-
Stroud	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/1½
Sunderland	1/6	1/6	1/6	1/6	1/6	1/6	1/6	10½
Swaffham	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½
Swansea	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/0½
Swindon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/1½
Tamworth	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/-
Taunton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Thetford	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Totnes	1/4	1/4	1/4	1/4	1/4	1/4	1/3½	1/-
Trowbridge	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Tunbridge Wells	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Uttoxeter	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/-
Wakefield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Walsall	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Walsden	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Warminster	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/1½	11
Warrington	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Warwick	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wells (Norfolk)	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	1/1½	10½
Welwyn Gar. City	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1½
West Bromwich	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Weston-super-Mare	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Weymouth	1/3	1/3	1/3	1/3	1/3	1/3	1/2	11½
Whitby	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wigan	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Winchester	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	11½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wisbech	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Wolverhampton	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Woodbridge	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	1/2½	11
Worcester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Worksop	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Worthing	1/3	1/3	1/3	1/3	1/3	1/3	1/3	11½
Wrexham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Wycombe	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wymondham	1/2	1/2	1/2	1/2	1/2	1/2	1/2	10½
York	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½

*The rate recognised by the National Association of Plasterers, Granolithic and Cement Workers, as and from the 1st February, 1932, is 1/9½ per hour.

For Building Trade wages in Scotland, see page 995.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender, that a fair wages clause shall be observed, that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given is the latest date when the tender, or the names of those willing to submit tenders, may be sent in, the name and address at the end is the person from whom or place where quantities, forms of tender, etc., may be obtained.

Following is a list of abbreviations:—Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

BUILDING, PAINTING, ELECTRIC LIGHTING, HEATING, etc.

JUNE 8.

Acton, W.—Filter House.—For the T.C. Town Clerk, Municipal Offices, W.3. Dep. £2.

Acton, W.3.—Re-slating roof, Public Library. Town Clerk, Municipal Offices.

Beckenham. — Lavatories.—In Cator-pk., for U.D.C. E. and S., 36, High-st. Dep. £2.

Bingley.—Painting.—External at training college, for West Riding E.C. Education Officer, County Hall, Wakefield.

Blotchingley, nr. Redhill.—Alterations, etc.—At Godstone Institution, for Surrey C.C. Clerk, County Hall, Kingston-upon-Thames. Dep. £3 3s.

Blotchingley, nr. Redhill.—Heating and Hot Water Installations.—At Godstone Institution, for Surrey C.C. Clerk, County Hall, Kingston-upon-Thames. Dep. £3 3s.

Cardiff.—Housing.—16, on Ely housing site, for T.C. City E. Dep. £2 2s.

Carlisle.—Building.—Stone-built convenience at Port-rd., Canal Bank, for Corporation. Percy Dalton, City E. and S., 18, Fisher-st.

Cork.—Repairs.—Repairing labourers' cottages in Cork and Bandon Rural Districts, for County Board of Public Health. D. Egan, secretary, Boardroom, Douglas-rd., Cork. Dep. 10s.

Cornwall.—Building.—Alterations to laundry at St. Austell Poor Law Institution; general repairs and external painting at Penzance Poor Law Institution; alterations to casual wards at Launceston Poor Law Institution; general repairs and external painting and alterations to casual wards at Liskeard Poor Law Institution, for C.C. S. Pool, A.R.I.B.A., County Architect, County Hall, Truro.

Dublin.—Offices.—Four new offices for salesmasters in Dublin Cattle Market, for Corporation. City E., 28, Castle-st.

Dublin.—Cottages.—92 labourers' cottages, for Board of Public Health. F. P. Russell, 15, Parnell-sq., Dublin. Dep. £2 2s.

Ely.—Demolition.—House and two adjoining cottages at corner of Newnham-st., Ely, for Isle of Ely C.C. R. S. W. Perkins, C.S., County Hall, March.

Hemel Hempstead.—Redecorations.—Also repairs to Council property, for R.D.C. T. H. Lighbody, S.

Keynsham.—Convenience.—Public convenience in parish of Keynsham, for R.D.C. H. W. Argile, Building Surveyor, 16, High-st., Keynsham, near Bristol. Dep. £2 2s.

Smethwick.—Installation.—Of electric lighting at new public baths, Thimblemill-rd., for C.B. R. Fletcher, B.E. and S. Dep. £5 5s.

Southampton.—Demolition.—In connection with Bargate improvement scheme, for C.B. B.E., 33-35, French-st. Dep. £1 1s.

Ware.—Houses.—At Wareside and Thundridge, for the R.D.C. Clerk, 8, West Street. Dep. £1 1s

JUNE 7.

Alfreton.—Conveniences.—At Alfreton, Riddings Council school, for Derbyshire E.C. G. H. Widdows, County Architect, St. Mary's-gate, Derby. Dep. £2 2s.

Brentford and Chiswick.—Alterations.—Provision and erection of doors and partitions to dressing-boxes at Brentford Swimming Bath, for U.D.C. E. Willis, E. Dep. £1 1s.

Hawarden. — Additions.—Also alterations, at County School, for Flints. E.C. R. G. Whitley, County Architect and Surveyor, County Buildings, Mold. Dep. £2 2s.

London.—Market.—Filling, levelling, surface concreting and drainage, also construction of brick retaining walls, in formation of open market, Plumstead-rd., S.E.18, for Woolwich B.C. B.E. Dep. £1.

Northfleet.—Houses.—Wombwell Park estate, for the U.D.C. Clerk, Council Offices. Dep. £5.

West Suffolk.—Painting.— Painting and small repairs at various schools, for West Suffolk E.C. A. Ainsworth Hunt, County Architect, 51a, Abbeygate-st., Bury St. Edmunds.

JUNE 8.

Arbroath.—Housing.—15 blocks, each of 4 three-apartment houses, 9 blocks to be erected on Cairnie Loan site, 4 blocks on Hayshead-rd. site, and 2 blocks on Hayewell-rd. site, for T.C. Carver & Symon, F.R.I.B.A., 11, Brothock Bridge. Dep. £1 1s.

Carrowmason.—Repairs.—To Carrowmacon Catholic Church. C.S., Castlebar.

Colchester.—Painting.—Certain schools, for E.C. D. Clark & Beckett, architects, St. Runwald's, 3, West Stockwell-st.

Dublin.—Shelter.—In Dublin Cattle Market, for Corporation. City E., 28, Castle-st.

Felixstowe.—Redecorations.—Of George Spurgen and Dover-rd. Council schools, for E.C. Acting Borough Engineer. Dep. £1 1s.

Glasgow.—Electrical.—Electrical work at Knightswood (new) school, Knightswood-rd., W.3, for T.C. D. Stenhouse, T.C. Dep. £1 1s.

Harpenden.—Adaptation.—Of hall for use as Council offices, for U.D.C. W. H. Johnson, Surveyor's Office. Dep. £2.

Hemel Hempstead.—Houses.—For the Corporation. Alfred E. Usher, Town Clerk, Town Hall. Dep. £5.

Luton.—Painting.—Also renovations of several schools, for E.C. P. J. Carter, Education Secretary, 3, Manchester-st.

Nottingham.—Painting.—Cleaning and painting various schools, for E.C. A. H. Whipple, Director of Education, Education Offices, South Parade.

St. Albans.—Extension and Alteration.—Of casual wards. Clerk, Public Assistance Office, Hertford. Dep. £3 3s.

Walsall.—Painting.—Schools, for T.C. J. Taylor, B.E. and S.

JUNE 9.

Aberdeen.—Building.—Extension of 64 lin. yds. of 8 in. dia. fireclay pipe sewer with manhole, and addition of bedroom and outbuildings to house, and construction of a public convenience at Market-st., Insch, for Garioch D.C. of Aberdeen C.C. G. Watt, 15, Old Station-rd., Inverurie.

***Aylesbury.**—Extensions.—To Isolation Hospital. Collcutt & Hamp, 126, Wigmore-st., Portman-sq., W.1. Dep. £5 5s.

London, N.W.—Houses and Flats.—For Willesden U.D.C. Clerk, Town Hall, Dyne Road, Kilburn, N.W.6. Dep. £1 1s.

JUNE 10.

Cork.—Building.—Sanatorium at Mount Desert House, Lee-rd., for Rev. Mother Euphemia, Bon Secour Home, Cork. J. R. Boyd Barrett, A.R.I.B.A., chartered architect, 61, South Mall, Cork. Dep. £2 2s.

Edinburgh.—Heating.—Heating, ventilating and hot water services at National Portrait Gallery, Queen-st., for H.M.O.W. Engineer, 122, George-st. Dep. £1 1s.

Huntingdon.—Additions.—Alterations and additions at institution, for Hunts C.C. C.S., Huntingdon. Dep. £2 2s.

***London.** — Painting. — Internal painting and polishing works to large hall. Council chamber, etc., at Town Hall, for Hammersmith B.C. R. Hampton Clucas, B.E. and S.

Otley.—Alterations.—At West Riding Tuberculosis Dispensary, Whiteley Croft, for West Riding C.C. West Riding Architect, County Hall, Wakefield.

Sutton-in-Ashfield. — Employment Exchange.—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

JUNE 11.

Birkenhead.—Cleaning.—Also painting, varnishing, etc., of interior of various Council voluntary and secondary schools, for Corporation. R. W. Johnston, B.E. and S.

Chichester. — Buildings. — Farm buildings at Kingsham Farm, for West Sussex C.C. County Architect, North-st., Chichester. Dep. £1 1s.

Dewsbury.—Houses.—32 houses at Lees Holm, Thornhill Lees, for C.B. Borough Architect and Surveyor. Dep. £1 1s.

Gillingham.—Sewerage.—Main pumping station at Gillingham, for T.C. W. H. Radford and Son, civil engineers, Albion Chambers, King-st., Nottingham. Dep. £3 3s.

Isle of Ely.—School.—Elementary school at Parson-drove, for C.C. R. D. Robson, School Architect, County Hall, March. Dep. £3 3s.

Moffatt.—Reconstruction.—Of academy, for Dumfries C.C. J. Robson, County Clerk, County Buildings, Dumfries.

Wakefield.—Additions.—Alterations and additions to garage at West Riding constabulary headquarters, for West Riding C.C. West Riding Architect, County Hall, Wakefield.

West Riding.—Improvements.—Wales Kiveton Park Council school, installation of new boiler; Hoyland Council school, relaying floors, for E.C. A. Rayner, 151, Cross-hill, Ecclesfield, Sheffield.

JUNE 13.

Barnby Dun.—Building.—Removal of temporary school building from Bentley Toll Bar to Barney Dun Council school and extensions of conveniences, for West Riding E.C. Education Officer, County Hall, Wakefield.

Dublin.—Repairs.—Internal decorations and minor repairs to 14 cottages, Palmerstown, Co. Dublin, for Irish Sailors' and Soldiers' Land Trust, 50/51, Upper Mount-st., Dublin. Secretary. Dep. £1 1s.

East Lothian.—Bungalows.—3-apartment houses in blocks of two houses at: 6 at Stenton, 24 at Westbarns, 8 at Direton, 20 at Aberlady, 10 at Longniddry, 4 at Gladsmuir, 20 at Pencaitland, 4 at Gifford, 6 at Garvald, 6 at Elphinstone, 2 at Athelstaneford, also 8 houses at Ormiston in blocks of 2 houses, 2-story type, for C.C. County Architect, Property and Works Department, Haddington.

Ferry Fryston.—Alterations.—To boundary wall and iron railings at Ferrybridge Council school, for West Riding E.C. Education Officer, County Hall, Wakefield.

Gt. Preston.—Installation.—Providing and fixing low pressure hot water installation at Great and Little Preston new junior school, for West Riding E.C. Education Officer, County Hall, Wakefield.

London.—Stalls.—Market stalls at Council's open-air market, for Lewisham B.C. B.S.

London.—Repairs.—To (a) Grove Hospital, Tooting-grove, Tooting Graveney, S.W.17; and (b) Dulwich Hospital, East Dulwich-grove, S.E.22, for L.C.C. Chief E., The Old County Hall, Spring-gardens, S.W. Dep. £1.

Maltby.—Installation.—Of electric light at new infants' school, for West Riding E.C. Education Officer, County Hall, Wakefield.

Mexborough.—Installation.—Of electric light at new junior school, for West Riding C.C. Education Officer, County Hall, Wakefield.

Sheffield.—Extension.—To columbarium at City-rd. cemetery, for T.C. W. Geo. Davies, F.R.I.B.A., City Architect. Dep. £2.

Swadlincote.—Houses.—Twenty-four, on Main-st. housing site, Newhall, including construction of carriageway and footpaths in connection therewith, for U.D.C. Geo. A. Taylor, Housing Architect. Dep. £2 2s.

Whitwood Mere.—Installation.—Of electric light at new senior school, for West Riding E.C. Education Officer, County Hall, Wakefield.

JUNE 14.

Chiswick, W.4.—Reconstruction of the Camellia house, Chiswick House. Clerk, Town Hall. Dep. £2 2s.

Dagenham.—Walling.—580 yds. of pre-cast post and slab walling, for U.D.C. E. and S. Dep. £2 2s.

Dover.—Building.—(1) Mortuary at rear of Hawkesbury-st. and (2) external restoration (part 2), Town Hall, for T.C. Wm. Bonlton Smith, B.E. Dep. £1 1s. each.

Dublin.—Room.—Additional room to labourer's cottage at Ballyboughill, Co. Dublin, for Dublin Board of Public Health. F. P. Russell, Board's Engineer, 15, Parnell-sq., Dublin.

East Ham.—Installation.—Of electric lighting at Shaftesbury and Storey-st. schools, for C.B. F. R. Thompson, secretary to E.C. Dep. 10s.

East Ham.—Painting.—Repairs and painting, etc., of schools, for E.C. B.E.

Hornchurch.—Centre.—Combined treatment centre, for Essex C.C. Jno. Stuart, F.R.I.B.A., County Architect, Chelmsford. Dep. £1 1s.

Liverpool.—Painting.—External, to buildings at several baths and washhouses, for T.C. Baths Manager, 75, Dale-st. Dep 10s. 6d.

Naas.—Houses.—Eight, at Naas, Co. Kildare, for Irish Sailors' and Soldiers' Land Trust. W. J. Brown, F.R.I.B.A., 51, Upper Mount-st., Dublin. Dep. £3 3s.

Nevendon.—Hall.—Dining hall at school, for Essex C.C. Jno. Stuart, F.R.I.B.A., County Architect, County Hall, Chelmsford. Dep. £1 1s.

JUNE 15.

Dublin.—Adaptation.—As preparatory college of part of former Hibernian Military School, Phœnix Park, for Commissioners of Public Works. T. Cassedy, Office of Public Works, Dublin. Dep. £5.

Liverpool. — Alterations. — Also extensions to Smithdown-lane post office, for H.M.O.W. Contracts Branch, King Charles-st., S.W.1. Dep. £1 1s.

Wiltshire.—Repairs.—Repairs and renovations to various schools for E.C. T. Walker, County Architect, Trowbridge.

JUNE 16.

Bootle.—Improvements.—For (a) renewing lead box cutters to conveniences and playsheds, girls' and infants' departments, Bedford-rd. Council school; (b) alterations to water supply to girls' and infants' w.c.'s, Bedford-rd. Council school; (c) repairing extension building, girls' department, Gray-st. Council school; (d) removing screens and gallery in housecraft centre, Linacre Council school; (e) replacing boarded floor with wood block flooring in classroom No. 4, girls' department, Orrell Council school, for E.C. B.E.

Bootle.—Partition.—Supplying and fixing complete one sliding and folding partition in boys' department at Hawthorne-rd. Council school, Hawthorne-rd., for T.C. B.E.

***Brighton.**—Alterations.—At Laughton Lodge, Laughton, near Lewes, for C.B. D. Edwards, B.E. and S. Dep. £2 2s.

Eckington.—Conveniences.—At Ridgeway Council school, for Derbyshire E.C. G. H. Widdows, F.R.I.B.A., County Architect, St. Mary's-gate, Derby. Dep. £2 2s.

Holyhead.—Repairs.—Suspension bridge at South Stack Light House, near Holyhead, for Corporation of Trinity House, London. M. K. Smith, Secretary, Trinity House, Tower Hill, London, E.C.3.

JUNE 17.

Bristol.—Painting.—Also colouring, etc., of certain schools, for T.C. W. Ludford Freeman, Director of Education. Dep. £1 1s.

Holywell.—Additions.—At Poor Law Institution, for Flintshire C.C. R. G. Whitley, County Architect and Surveyor, County Buildings, Mold.

St. Asaph.—Repairs.—Alterations and repairs at St. Asaph Poor Law Institution, for Flintshire C.C. R. G. Whitley, County Architect and Surveyor, County Buildings, Mold.

JUNE 18.

Easthampstead.—Repairs.—To Rose Cottage, School-hill, Sandhurst, for R.D.C. C. Yorke, S.

Newark.—Houses.—20, in Balderton, for R.D.C. R. Oakden, S., 27, Winchilsea-av.

JUNE 20.

Bangor.—Demolition.—Of old Penrhyn Arms at Pen-y-Bryn, for T.C. The City S.

Bangor.—Houses.—26 on Maes-y-llan housing scheme, and 30 on Pen-y-bryn housing scheme, for T.C. B. Price Davies, City Architect. Dep. £3 3s.

Epping.—Home.—Nurses' home at Institution, for Essex C.C. J. Stuart, F.R.I.B.A., County Architect, Chelmsford. Dep. £2 2s.

Near Leeds.—Installation.—Wiring in connection with installation of electric lighting in males' sick and infirm block and other buildings at Menston

Mental Hospital, near Leeds, for West Riding Mental Hospitals Board, W. E. H. Burton, architect and engineer, Wakefield. Dep. £1.

JUNE 21.

Down.—School.—Public elementary school at Castlewellan, for County Regional E.C. Castor J. Love, architect, 5, Wellington-place, Belfast.

Ireland.—School.—Erection of a national school at Urbleshanny, Co. Monaghan, and enlarging Rathkell National School, Co. Mayo, for Commissioners of Public Works. T. Cassedy, secretary, Office of Public Works, Dublin. Dep. £1 each.

Wood Green.—Redecoration.—(*a*) External painting of 49 houses and internal decorations to 42 houses on Durnsford-rd. estate; and (*b*) external painting of 83 houses on White Hart-lane estate, for U.D.C. E. and S.

JUNE 22.

Lewes.—Public Conveniences, etc.—Town Clerk, Town Hall. Dep. £2 2s.

JUNE 23.

***Fakenham, Norfolk.**—New Post Office—For H.M.O.W. Contracts Branch, King Charles-st., London, S.W.1. Dep. £1 1s.

JULY 7.

San Salvador.—Houses.—1,000 cheap houses, for Ministry of "Fomento," San Salvador, Republic of El Salvador, Central America. Apply Consulate General of Republic of Salvador, 7 and 8, Union-court, E.C.2.

NO DATE.

Aberdovey.—Cottage.—Gardener's cottage at Cwrt, Pennal, for Owen D. Jones. Chas. F. Ellis, L.R.I.B.A., chartered architect, Aberdovey.

***Newton Abbott.**—Alterations and Additions.—To 20/22, Queen-st. Timothy Whites (1928), Ltd., Construction Dept., 30, Chandos-st., Portsmouth.

Rochdale.—Painting.—Assembly room and bars at Wellfield Workmen's Club, Prince-st. Steward at Club.

Southampton.—Centre.—New town hall (block No. 3, contract No. 4, new civic centre), for C.B. F. J. Clevely, quantity surveyor, 42, Gordon-sq., London, W.C.1. Dep. £5.

Stratford-on-Avon.—Extension.—To premises of National Farmers' Union Mutual Insurance Society, Ltd. F. W. B. Yorke, architect, 36, Calthorpe-rd., Edgbaston, Birmingham. Dep. £1 1s.

Trefegiwys.—Restoration.—Of belfry at parish church. B. Roberts, vicar.

MATERIALS, etc.

JUNE 7.

Radstock.—Highways Materials.—For U.D.C. C. H. Perry, Clerk.

Rowley Regis.—Highway Materials.—For U.D.C. C. Buckley, Clerk.

JUNE 8.

Dublin.—Builders' Materials.—For Great Southern Rly. Co. H. S. Coe, secretary, Kingsbridge Station, Dublin.

JUNE 11.

Ogmore and Garw.—Highway Materials, etc.—For U.D.C. W. T. Ollivant Jones, E. and S.

JUNE 14.

Newcastle-under-Lyme.—Highway Materials.—For T.C. A. A. Pattison, B.E. and S.

Northfleet.—Highway Materials.—For U.D.C. S.

JUNE 17.

London.—Paints, etc.—For M.W.B. G. F. Stringer, clerk, 173, Rosebery-av., E.C.1.

JUNE 30.

Alexandria.—Paints, etc.—For Egyptian Ports and Lighthouses Administration. Dept. of Overseas Trade, 35, Old Queen-st., S.W.1. (Ref. No. B.X. 7,390.)

ENGINEERING, IRON AND STEEL.

JUNE 6.

Bradford.—Sewerage.—For Esholt sewage disposal works, and Baildon and Thackley sewage, for T.C. H. Wontner-Smith, Sewageworks Engineer, Esholt Hall, near Shipley, Yorks. Dep. £5.

Hayes and Harlington. — Station. — Pumping station, comprising reinforced concrete underground chambers and brick superstructure, for U.D.C. E. A. Sandford Fawcett, consulting engineer, 53, Victoria-st., Westminster, S.W.1. Dep. £5 5s.

Johannesburg.—Bridgework.—Supply and delivery only of steelwork for the new Umlaas River bridge, South Coast Line, Natal, for South African Railways and Harbours. Dept. of Overseas Trade, S.W.1. (Ref. G.11420).

Moulton.—Bridge.—Light steel bridge on mass concrete abutments at Moulton, near Newmarket, for West Suffolk C.C. E. H. Bond, C.S., Shire Hall, Bury St. Edmunds.

JUNE 7.

Galway.—Boring.—Boring works at Galway Harbour, for Harbour Commissioners. W. N. Binns, B.E., harbour engineer.

St. Mellons.—Bridge.—Bridge over Bettws brook, near Bettws Church, for R.D.C. Thomas & Morgan & Partners, engineers, Pontypridd. Dep. £5.

JUNE 8.

Birmingham.—Sewerage.—3,240 yds. of brick and concrete, concrete tube and stoneware pipe sewers and culverts, together with brookcourse improvements, etc., in Gibson-rd., Rookery-rd., Victoria-pk. and private lands between Hamstead-rd. and Rookery-rd., Handsworth, for T.C. H. H. Humphries, City E. and S.

JUNE 11.

Cairo.—Water Supply.—Small water works for the village of Deir Moas, for Egyptian Ministry of Interior. Dept. of Overseas Trade. (Ref. G.X. 11,390.)

Stockport.—Segments.—70 tons of cast-iron segments for Goyt Valley supply scheme, for T.C. G. H. Hill & Sons (Manchester), civil engineers, 40, Kennedy-st., Manchester. Dep. £2 2s.

Tipton.—Piping.—Piping of brookcourse and appertaining works near Cotterill's-rd., for U.D.C. H. N. Woodard, E. and S. Dep. £2 2s.

JUNE 14.

Kent.—Piling.—Reinforced concrete piling and sheeting; also guard fencing for length of about 240 yds. along footpath which adjoins canal at Hampstead-lane, Yalding, for C.C. H. T. Chapman, C.S., St. Peter-st., Maidstone. Dep. £1 1s.

JUNE 16.

***Laughton, nr. Lewes.**—Sewage Disposal Plant, etc.—For Laughton Lodge. T.C., Public Assistance Offices, Princes-st., Brighton. Dep. £2 2s.

JUNE 18.

Swanage.—Groynes.—Four timber pile groynes with north spurs, and erection of two north spurs to existing groynes, for U.D.C. F. Gamble, S.

JUNE 22.

Birmingham.—Pipes.—340 yds. of stoneware pipe and brick and concrete foul and surface water sewers and culverts, together with incidental works in Northfield-rd., Tibbets-lane and private lands, Harborne, for T.C. H. H. Humphries, City E. and S. Dep. £2.

Swindon.—Pipe Laying.—Laying of about 10 miles of cast-iron pipes and specials, from 26 in. in dia. downwards, together with valves, etc., for Latton water scheme, for T.C. Dr. Herbert Lapworth, E., 25, Victoria-st., S.W.1. Dep. £5.

JUNE 23.

Bettws-y-Coed.—Tank.—Circular covered steel tank and construction of filter house, pipe-laying, foundations, and other incidental works, at Elsi Lake, for U.D.C. R. F. Baker, E., 601, Borough-rd., Birkenhead. Dep. £1 1s.

ROAD, SEWERAGE AND WATER WORKS.

JUNE 6.

Aberdeen.—Pipes.—18-in. dia. F.C. stormwater overflow pipe and diversion of existing 18-in. F.C. pipe sewer in Holland-st., and constructon of 18-in. F.C. stormwater overflow pipe in Powis-terr., for T.C. Thos. F. Henderson, City Engineer and Water Engineer. Dep. £1 1s.

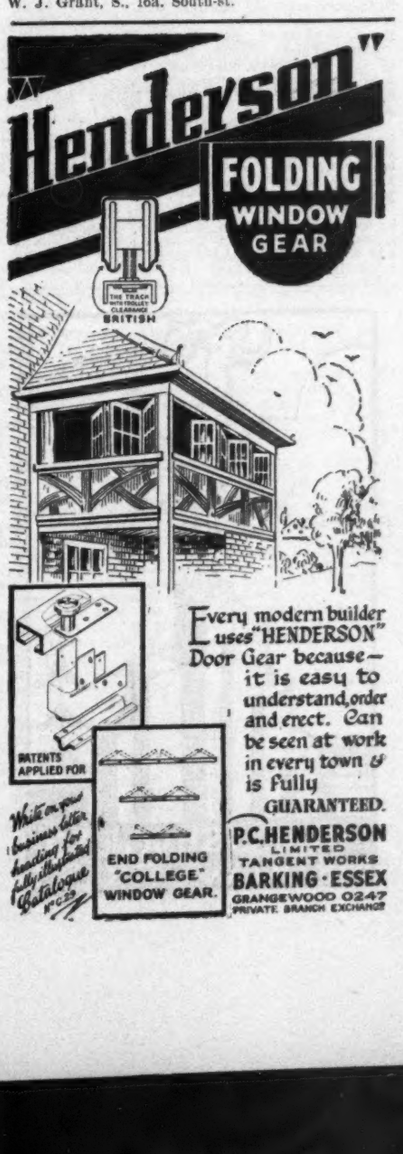
Coulsdon and Purley.—Making-up.—Of Victoria-av., Sanderstead, for U.D.C. G. A. Ballard, S. Dep. £1 1s.

Dublin.—Mains.—Laying of new 3 in. iron water mains at town of Swords, for Board of Public Health. F. P. Russell, E., 15, Parnell-sq.

Eastry.—Road.—100 yds. lin. of flint carriageway, 82 yds. lin. of gravel paved footways and 130 yds. lin. of 6 in. sewer on Council's housing site at Ash, near Sandwich, for R.D.C. H. Barker, 37, Queen-st., Deal. Dep. £2 2s.

Netherne.—Drainage.—At Mental Hospital, near Coulsdon, for Surrey C.C. F. J. Hodgson, L.R.I.B.A., 201, High-st., Guildford. Dep £3 3s.

Romford.—Sewers.—Sewers in Lambs-lane, Wennington-rd. and Upminster-rd., Rainham, for R.D.C. W. J. Grant, S., 16a, South-st.



Slough.—Sewering.—Of Stowe-rd. and Masons-rd., for U.D.C. A. Bromley, E.

JUNE 7.

Aberdeen.—Sewers.—Construction of fireclay pipe sewers, etc., at Torry housing scheme, for T.C. Thos. F. Henderson, City E. Dep. £2 2s.

Chingford. — Making-up. — Of Horsley-rd., for U.D.C. S. J. Hellier, E. and S. Dep. £1 1s.

Wimbledon.—Making-up.—Of portion of Queensmere-rd., for T.C. B.E. and S. Dep. £2 2s.

JUNE 8.

London.—Paving.—Of Parkthorne-rd., Clapham, for Wandsworth B.C. E. J. Elford, B.E., 215, Balham High-rd., S.W.17. Dep. £1 1s.

Worcester.—Extension.—Of sewers in Bath-rd., for T.C. W. Ransom, City E. Dep. £2 2s.

JUNE 9.

Larne.—Pipes.—760 yds. lin. cast-iron water pipe, with necessary storage tank, valves, fountains, etc., in connection with Straid water supply, for R.D.C. S. Robinson, E., Victoria-st.

Leeds.—Paving.—Kerbing, flagging, tar-paving footpaths and carriageways in Roundhay-av. (part), Chatswood-crescent, Chatswood-av., Hollin View, Talbot View (part). Kerbing, tar-paving footpaths and carriageways in streets on following housing estate: York-rd. and Selby-rd (Area No. 3), for T.C. E. W. Cockerlyne, Highways Engineer, 155, Kirkstall-rd. Dep. £1 1s.

Teddington.—Repaving.—Of Wellington-rd., for U.D.C. E. Bostock, S. Dep. £2.

Teddington.—Reconstruction.—Of Stanley-rd., for U.D.C. E. Bostock, S. Dep. £2.

JUNE 10.

Dagenham.—Asphalting.—Supplying and laying gravel mastic asphalt on footways of certain private streets in Chadwell Heath, for U.D.C. E. Dep. £1 1s.

JUNE 13.

Bootle.—Flagging.—Parts of Knowsley-rd., for T.C. B.E.

JUNE 14.

Bromley.—Sewer.—2,400 yds. of concrete tube sewer, 24 in. dia., together with manholes and other incidental works, in the parishes of St. Paul's Cray and St. Mary Cray, Kent, for the West Kent Main Sewerage Board. A. E. Scott Murray, E., Park House, Bromley. Dep. £5 5s.

Dewsbury.—Making-up.—Of Clarkson-st. (part of), Ravensthorpe; Crawshaw-st. (part of), Ravensthorpe, for C.B. B.E.

East Ham.—Paving.—Repairing tar paving of playground at 8 schools, for C.B. B.E. Dep. 10s.

Southgate.—Making-up.—Kerbing, channelling, paving and making-up of Connaught-gardens, for U.D.C. R. Phillips, S. Dep. £2.

Strathspey.—Pipes.—Providing and laying about 2,300 lin. yds. of 4-inch dia., and about 3,000 lin. yds. of 2-inch dia. asbestos cement pressure pipes, and constructing three small concrete storage tanks for improvement of water supply to various farms and cottages on Strathspey Estate, for Lady Seafield's Trustees. Carfrae and Morrison, engineers, 4, Hill-st., Edinburgh.

Sutton and Cheam.—Making-up.—Of Ruskin-drive, Ebbisham-rd., Priory-cres., The Avenue (Section 2), for U.D.C. Wm. Hedley Grieves, S. Dep. £1 1s. each road.

JUNE 15.

Hendon.—Drainage.—4 in. and 6 in. soil drainage to 14 cottages at the City, Harrow Weald, including a small filtration plant, for R.D.C. H. W. Rackham, S. Dep. £3 3s.

Hendon.—Making-up.—Of Weald-lane, Farmstead-rd. (Sec. 2), Enderley-rd., Barchester-rd., Westway, Handel-close, for R.D.C. H. W. Rackham, S. Dep. £3 3s.

Heston and Isleworth.—Making-up.—Of Ridgeway-rd. (Sec. A), for U.D.C. J. G. Carey, E. and S. Dep. £3 3s.

Leeds.—Paving.—Excavating, concreting, paving, etc., in connection with construction of portion of tramway track in Roundhay-rd., between Sheepscar and Gathorne-ter., for T.C. W. Vane Morland, General Manager and Engineer. Dep. £1 1s.

JUNE 17.

Kingsbury.—Making-up.—Of Bacon-lane, for U.D.C. R. C. N. Newport, E. and S. Dep. £2 2s.

Watford.—Making-up.—Of Elm-av., from Sherwoods-rd. to Borough Boundary, for T.C. W. W. Newman, B.E. Dep. £2 2s.

Watford.—Making-up.—Of roadway and paths of Elm-av., for Herts C.C. A. E. Prescott, C.S., Hatfield.

JUNE 18.

Bexley. — Improvements. — To Wickham-st., from Central-av., to Oliffe-av., for U.D.C. G. A. Joy, S. Dep. £2 2s.

Bexley.—Improvements.—Paved footpath on east side of Brampton-rd., for U.D.C. G. A. Joy, S. Dep. £2 2s.

Bourne.—Tubes.—Laying three lines of reinforced concrete tubes in concrete at Greatford Bridge, on Greatford-Carlby road near Bourne, for Kesteven C.C. W. T. Phipps, clerk, Sleaford.

JUNE 20.

Hendon.—450 yds. of 21-in. concrete tube surface water sewer with manholes and other works, on Great North-way and Waverley-grove, for U.D.C. A. O. Knight, E. Dep. £5 5s.

Public Appointments

JUNE 6.

Derby.—Estates and Housing Inspector.—J. Pritchard Lovell, Borough Estates Manager, Becket-st.

JUNE 11.

Prestwich.—Clerk of Works.—Chairman, County Mental Hospital.

JUNE 16.

***Enfield.**—General Foreman required by the U.D.C. Clerk, Council Offices.

PROPOSED NEW BUILDINGS & OTHER WORKS*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council R.D.C. for Rural District Council; E.C. for Education Committee; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; C.B. for County Borough; B. of E. for Board of Education; M.W.B. for Metropolitan Water Board; Borough Surveyor, B.S.; Borough Engineer, B.E.; District Surveyor, D.S.; Clerk, C.; Town Clerk, T.C.; County Engineer, C.E.; County Surveyor, C.S.; Surveyor, S.; Engineer, E.

Aberdeen.—Congregation of Holborn Central Church decided to build church hall; and Congregational Board empowered to acquire suitable site for building.

Acomb.—P.C. agreed to request Great Ouseburn R.D.C. to make arrangements for 50 additional Council houses.

Acton.—B.C. proposed to renew fabric covering of Grand Hall and its galleries at baths at £122 10s.

Ballinasloe.—Mental Hospital Committee propose auxiliary asylum at Hamstown, Castlerea.

Barking Town.—T.C. received sanction to borrowing £26,938 in connection with widening and improvement of Gale-st., Upney-lane and Lodge-lane bridges.—Council recommend, subject to approval of E.C. and B. of E., sub-station be erected in Park modern school and sanction to borrowing £7,820.—B.E. and S. report upon sites near centre of town suitable for public convenience.—Sanction received to borrowing £50,000 for public elementary schools.—Plans passed:—20 houses, Ripple-rd., Lord & Melliodew; loading shed, Harts-lane, Cape Asbestos Co., Ltd.; 3 houses and one shop, Ilford-lane, J. Clement; amended drain plan for 14 shops in Longbridge-rd., Hooper & Rogers.

Barwell.—Barwell & District Co-operative Society, Ltd., Barwell, propose premises in High-st. Plans in Architects' Dept., Co-operative Wholesale Society, Ltd., Balloon-st., Manchester.

Beddington and Wallington.—Council received M.H. sanction to loan of £21,220 for 62 houses and 4 flats at Beddington-lane.

Bedminster.—E. Robinson proffered to erect public branch library and new mission hall upon new housing estates.

Beeston.—Local branch of British Legion proposing headquarters.

Berkhampstead.—Housing Committee of U.D.C. recommend further 50 houses on site on Swing Gate-lane estate.

Biddulph.—S. Gibson, architect, Biddulph, near Congleton, prepared plans for miners' welfare centre at New-st. for Miners' Welfare Committee.

Billingham-on-Tees.—U.D.C. to support application by Durham County E.C. for temporary tenancy of land adjoining Council School for portable buildings to accommodate 400 children. Mr. Willey, architect, 34, Old Elvet, Durham.—County E.C. of Durham proposes acquiring land for proposed branch library.

Bingley.—U.D.C. propose conveniences in basement of library. H. Bottomley, S.

Birkenhead.—E.C. propose electricity sub-station on Moorcroft-rd., Rock Ferry. F. E Spencer, E.

Birmingham.—Store premises for Hawkes & Snow, Ltd., at Priory-works, Stratford-rd., Shirley.

Bollington.—U.D.C. propose to purchase Brook Bank House for adaptation for Council offices.

Bramhope.—Scheme of extensions to be carried out shortly at Bramhope (Yorkshire Branch) National Children's Home and Orphanage.

Brentwood.—Essex C.C. recommend site for Council senior school, at £1,900.

Bridlington.—Premises to be erected for Montague Burton, Ltd. No contracts been settled.

Bristol.—British-Israel-World Federation proposed assembly hall and offices at £5,000.—Corporation propose 100 flats at Parson-st. area and Bedminster at £25,896 and £28,888.

Chailey.—R.D.C. approved:—public hall for amateur theatricals at Newick.

Chapel-en-le-Frith.—Joseph Lingard, Ltd., prepared their own plans for extensions to Bowden Hay Mills.

Chester-le-Street.—U.D.C. to apply to M.H. for sanction to 50 houses for aged people. 106 houses at Chester-le-Street to complete Kerrich Walker housing scheme, and also 50 at Pelton Fell. Plans by S.

Chesterton.—R.D.C. passed proposals for provision of a further 70 houses in various parishes of the area.

Chichester.—West Sussex E.C. recommended erection of new Council school for juniors and infants at St. James's-rd. to accommodate 315 pupils, at £12,250.

Cork.—North Cork Co. Board of Health to apply for Government sanction to scheme for 860 three-roomed cottages in North Cork area at £200 each, including site.

Coventry.—Sewage Disposal Committee recommend improving sewerage and sewage disposal arrangements in Canley area at £51,500, and application be made to M.H. for sanction.

Croston.—Parochial Council of Parish Church proposing side chapel and alterations in chancel. Plans by Walter Tapper, F.R.I.B.A., 10, Melina-place, St. John's Wood, London, N.W.3.

Derry.—Port and Harbour Commissioners decided to reflor in concrete shed at Queen's quay at £3,000.

Dewsbury.—Holtom & Fox, architects, Union-st., preparing plans for elementary school with accommodation for 260 children.

Dublin.—Plans approved by Corporation: Orwell-rd., Rathgar, 7 houses, W. G. Harrison; Bloomfield-av., Hebrew school; Griffith-av., 14 houses, Woodvale Public Utility Society; 50 Middle Abbey-st., alterations, St. Patrick's Guild; Belmont-av., Donnybrook, pavilion, C. V. Norman.

Dun Laoghaire.—Corporation given notice of intention to acquire compulsorily allotments in Glenageary for purpose of erecting buildings suitable for lodging houses for working classes.

Durham.—C.C. propose to apply to M.H. for sanction to borrow £115,000 for proposed institution for mental defectives at School, Aycliffe. Architects, Rees & Holt, 64, Rodney-st., Liverpool.—C.C. approved scheme for bridge in place of West Auckland bridge. Cost about £11,000. W. J. Merrett, C.S.—F. Willey, 34, Old Elvet, Durham, architect to County E.C., been instructed to obtain tenders for electric lighting of main building at Washington Biddick Council school.—County E.C. completed negotiations for purchase of sites at Houghton-le-Spring, Pelton and Horden for proposed Council schools. F. Willey, County Architect, 34, Old Elvet.

Easington.—Easington sub-committee of Durham County E.C. recommends additional accommodation at Horden Council School. Mr. Willey, 34, Old Elvet, Durham, architect.

East Ham.—B.E. to prepare plans for invitation of tenders for new pavilion at "Harts" Sanatorium.—Plans passed: 10 houses, 118-136, Landseer-av., and 9 houses, Dore-av., J. W. Lohden; alterations, 437, Barking-rd., H. J. Parkin.

Edenderry.—£1,700 to be spent on reconstruction of town hall.

Edinburgh.—Garage, filling station and number of shops at Colington-rd., Craiglochart, Chas. Tweedie & Sons, architects, Frederick-st.; alterations at Seabeach House, Straighton-place, Portobello, J. Lennie, architect, 4, St. Colme-st.; 10 separate houses at Stevenson-av., A. H. Mottram, architect, 53, Frederick-st.; additions at 110 to 112, Gorgie-rd., A. Foote, architect, 106, Hanover-st.; reconstruction, etc., at 119, Lothian-rd., A. L. Goodwin, architect, 34, Castle-st.; reconstruction at 83, Lothian-rd., D. Grant & Sons, architects, St. James'-place.

Egham.—U.D.C. approved: Cricket pavilion at Windsor-rd., for Denham C.C.

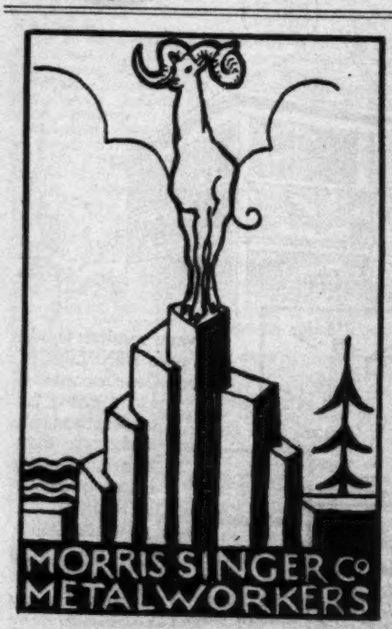
Elstow.—Beds E.C. recommended that plans for additional rooms at Elstow school, at £2,750, be approved and forwarded to B. of E.

Epsom.—U.D.C. approved: 2 pairs of houses, Hamilton Close, E. Uden; 6 garages, rear of Drummond-gardens, Horton Hill, Chase Estate Trustees; additions to Convent of the Sacred Heart, Dorking-rd., Rev. Mother Superior.

Essex.—Public Health and Housing Committee of C.C. recommend conveyance of land at Chingford as a site for combined treatment centre, and conveyance of land at Black Notley, adjoining sanatorium.

Feltham.—U.D.C. approved plans by H. W. A. Carter, S., for fire station in grounds of Bridge House.—Plans passed:—extension of factory, Mono Containers, Ltd.; petrol filling station, Staines-rd., Lacy Brothers; 6 houses, Bear-rd. Hanworth, A. Mitchell.

Fleetwood.—Council passed plans for 73 houses by J. Cryer & Sons in Beach-rd., Broadway, and 2 proposed new streets, 24 houses in Coniston-av. and Borrowdale-av., and 8 in Ribble-rd., for Fleetwood Building Co., Ltd.



Gainsborough.—E.C. propose alterations at Morton elementary school at £4,650.

Gateshead-on-Tyne.—J. W. Corking, 16, West-st., Gateshead, architect for alterations to "Belle Vue" hotel for executors of W. Wears. Contract not let.

Glasgow.—Accommodation for stores and distribution department, for Education Authority, at Buchan-st. W. McCaig, architect, 129, Bath-st.—Building to be erected for Clydebank Co-operative Society, Ltd., at Knightswood. Stewart & Paterson, architects, 16, Blytheswood-sq.—Corporation to overhaul suspension bridge over Clyde at South Portland-st. T. Somers, Office of Public Works, George-st.—Shops to be constructed at Central Station. J. Stewart, L.M.S. Engineer and Architect, Central Station.—Shop in Firhill-rd., C. Grogan, architect, 117, Raeberry-st.; reconstruction at 91 to 93, Firhill-rd., White & Galloway, architects, 121, Bath-st.; extension and buffet at Carntyne-rd., for Scottish Greyhound Racing Co., A. D. Ireland, architect, 3, Marlborough-crescent, Cathcart; reconstruction and additions at Castlemilk-rd., Cathcart, Rutherglen Co-operative Society, Ltd., W. Mercer, architect, Paisley-rd. Offices; reconstruction at Shettleston-rd., J. Aitchieson, architect, 170, Hope-st.; reconstruction at Mair-st., Jebb Bros. (Glasgow), Ltd., architects, Plantation-works; new timber sheds, etc., at 1090, London-rd., Dalmarnock. J. Sinclair, architect, 95, Bath-st.

Halifax.—Additions to be carried out at factory premises of G. H. Gledhill & Sons, Ltd., Trinity Works.

Hastings.—Plans been made public of new "double-decked" promenade for Hastings front designed by Borough Engineer, Sidney Little, at £32,000.

Hexham-on-Tyne.—Application for grant for purchase of land at Hudshaw, on which to erect 100 houses been made to M.H. by U.D.C. W. G. Landale, S.

Hodnet.—Building Committee of Wolverton Working Men's Club propose premises (secretary, H R. Spencer).

Horncastle.—R.D.C. recommended following houses:—Bucknall 2; Fulletby 2; East Barkwith 2; Mareham-le-Fen 4; Tattershall 4; Tattershall Thorpe 4; Wildmore 4, and Wragby 6.

Hucknall.—U.D.C. propose welfare centre.

Huddersfield.—Wesleyan Authorities proposing primary school at Crosland Hall.

Lancashire.—Special Committee of Lancashire Mental Hospital Board recommends extensions at Lancaster Hospital, Whittingham, Prestwich, and Rainhill, also erection of new mental hospital at £400,000. S. Wilkinson, F.R.I.B.A., County Architect.

Leamington Spa.—Additional paying patients' block to be erected at Warneford Hospital, Radford-rd.

Leeds.—Plans have been prepared for proposed joint cricket and football stand to replace that destroyed by fire at Headingley ground of the Leeds Cricket, Football, and Athletic Co. (Ltd.).

Leek.—U.D.C. received M.H. approval to obtaining tenders for 40 non-parlour, 3-bedroomed houses. S. instructed to complete plans and specifications and advertise for tenders

Liverpool.—E.C. recommend plans prepared by Land Steward and Surveyor, for public elementary school of light construction for senior boys, on Grandison-rd. site, be adopted and forwarded to B. of E. in lieu of plans recently approved.—M.H. forwarding formal sanctions to the borrowing of following sums: £292,966 and £358,309, for working-class dwellings; £2,110, for housing; £53,800, for dwellings for purposes of the Housing Act, 1930: £1,780, for dwellings under City of Liverpool, Prince Edwin-st., Saltney-st. and Blenheim-st. improvement scheme; £20,500, for dwellings under Burlington-st., Hopwood-st., Great Richmond-st., and Rankin-st. improvement scheme; £42,730, for purposes of Housing Act, 1925; £273,373 and £249,727, for working-class dwellings; £66,100, for dwellings for purposes of the Housing Act, 1930; £13,870, for purchase of land in Blackstock-st.; £32,372 and £28,078, for dwelling houses.—Richard Owen & Son to set back proposed 5 shops in Rose-lane, Mossley Hill.—Libraries, Museums and Arts Committee proposing to secure site in vicinity of Banks-lane, Garston, for branch library.

Llanharan.—Architects' Department, Co-operative Wholesale Society, Ltd., Balloon-st., Manchester, completed plans for dairy for the Co-operative Society. Contracts not yet let.

Loughborough.—P.A.C. propose laundry at institution at £1,700.

London (Chelsea).—B.C. recommend, subject to necessary estimate being submitted by Finance Committee, flood defence works at river frontage of Cheyne-walk, be put in hand, under supervision of B.S.—T. Wright applied for consent to garage building at rear of 11, Lamont-rd., to abut upon Limerston-st.—Drainage plans passed: Westminster Bank, Ltd., bank, Westminster Bank, Ltd., 34-35, Sloane-sq.; T. M. England & Co., Ltd., house, 30, Halsey-st.; Say & Son, house, 70, Sloane-st.

London (City).—Corporation recommend £1,500 for repairs to stonework of Guildhall library.—Council propose repairs to balconies at Corporation buildings at £240.—Repairs to southern approach of Tower Bridge proposed by Corporation.

London (Deptford).—B.C. recommending application be made to L.C.C. for sanction to borrowing £18,200 in reconstruction and repair of Erdswell-rd. and Vesta-rd. bridges.—Plans passed: Purvis & Purvis, 417, New Cross-rd.; addition at 416, New Cross-rd.

London (Paddington).—B.C. recommend, subject to Special Housing Committee, application be made to L.C.C. for sanction to borrow £5,330 for acquiring site formerly occupied by 61-65, Brindley-st., and erecting thereon working-class dwellings.—Council recommend no objection to plan of site of tuberculosis dispensary proposed to be estab-

*See also List of Contracts, Competitions, etc.

lished in Inoculation Department of St. Mary's Hospital.—Plans passed: Business and garage (car park) premises or building, Queen's-rd.; new "Royal George" public-house, Bristol-gdns.

London (Poplar).—B.C. received M.H. sanction to borrowing £105,524 for reconstruction of Poplar baths.—Greenhouse at recreation ground.—B.C. approved general lay-out plans in connection with Benworth-st. and Emmett-st. clearance area schemes.—Plans passed:—J. J. Calder, 39, Pancras-rd., N.W.1, house, 561, Old Ford-rd., E.3; R. Gregory, Ltd., 16-16a, Fuller-st., E.2, building and drainage, new w.c., 324, Roman-rd., E.3; Harley Heckford, B.E. and S., flats, Beachy-rd., E.3, flats Glaucus-st., E.3, flats, Glengall-rd., E.14, flats, Poplar High-st., E.14, and flats, Benworth-st., E.3.

London (St. Pancras).—B.C. recommend that application be made to L.C.C. for sanction to borrowing of £4,345 for development of Bartholomew-rd. depot.—Estates Committee recommend £239 for repairs to property in Pratt-st. and Georgiana-st.

London (Stoke Newington).—B.C. proposing to purchase land at 166-180, Church-st. for extension to electricity undertaking and library extensions.

Longtown.—Tenders invited for electric lighting of Arthuret Parish War Memorial Hall. Particulars from Secretary, Memorial Hall.

Macclesfield.—Brocklehurst & Co., estate agents, King Edward-st., preparing lay-out plans of New Hall estate, Beach-lane, for residences for A. & G. Brookes, builders, of Stockport.—Maternity and Child Welfare Committee proposing to acquire "Westbrook" and grounds for a nurses' home.

Manchester.—Wesleyan Authorities proposing church at Northern Etchells on Wythenshawe estate.

Marple.—W. W. Bramwell & Taylor, 10, Diamond-st., Heaviley, Stockport, prepared plans for 18 detached villas at Stockport-rd.

Melbourn.—R.D.C. proposing to invite tenders for 38 houses.—Housing Committee recommended application be made to borrow £520 for purchase of housing sites at Barrington, Foton and Litlington.

Menston-in-Wharfedale.—Wesleyan Authorities propose Sunday school at £3,600.

Middlesbrough.—Plans prepared for club premises for Joe Walton's Boys' Club.

Milnsbridge.—Wesleyan Authorities propose extensions to Wesleyan schools at £2,100.

Newcastle-on-Tyne.—Plans by A. K. Tasker, Trinity-bldgs., New Bridge-st., for Presbyterian Church hall in Newton-rd. been approved. Cost about £3,000.—Plans approved for improvements to premises of J. Dixon, 158, New Bridge-st. S. J. Stephenson, architect, 5, Saville-pl.—F. N. Fatkin, 77, Westgate-rd., architect for warehouses, etc., in Pandon, for Mrs. Lidgate, general carrier.—6 small motor houses in Kirkstone-gdns. to plans by Marshall & Tweedy, 129, Pilgrim-st. Contracte not placed.—L. G. Couves & Partners, Carliol House, architects for alterations to Beaumont & Sons' premises, Carliol-pl. Tenders not yet invited.—Marshall & Tweedy, 129, Pilgrim-st., architects for alterations to M. H. Wilson & Co.'s premises.—Plans approved for rebuilding of Bradburn's premises, Northumberland-st. Contract not been let. Plans by J. Oswald & Sons, 2, Worsick-st.—Public elementary school to accommodate 1,200 pupils to be erected by City Council on Ferguson-lane housing estate. Architect not appointed.—Town Improvement and Streets Committee approved plans for conversion of Westgate House and grounds into a garage, etc. Marshall & Tweedy, 129, Pilgrim-st, architects.—Premises of A. W. Bridge, Ltd., to be rebuilt. Plans passed. J. N. Fatkin, 77, Westgate-rd., prepared plans.—Plans prepared by F. M. Dryden, 6, Market-st. for 33 houses in Tiverton-close, for G. C. Haddon, builder.

Norden.—Crown Brewery Co., Liverpool-rd., Bury, proposing alterations and erect new sanitary conveniences to "Elephant and Castle" hotel. Plans by Tom Barnes, resident architect, Brewery Offices.

Northfleet.—U.D.C. Housing Committee to invite tenders for 100 houses, in accordance with plans prepared by S.

Northwich.—Cheshire C.C. considering reconstruction of navigation bridge, towards cost of which Weaver Trustees have offered to contribute £8,400. G. E. Ashworth, C.S., The Castle, Chester.

Norwich.—City Council adopted a report and recommendation from E.C. that infants' school be erected on Mousehold House estate by Education Stores and Works Department, at £6,436.

Nottingham.—Catholic Authorities of St. Edward's Church (Rev. Father Leo, P.P.) propose church on Blue Bell-hill.

Oldmeldrum.—E. L. Williamson, architect, Aberdeen, prepared plans for 2 blocks of flatted houses for T.C.

Ormskirk.—Metcalfe & Metcalfe, FF.R.I.B.A., 3, Stanley-st., Liverpool, architects for extensions at isolation hospital, Holly House, Aughton, for West Lancashire R.D.C.

Padgate.—Poulton-with-Fearnhead Parish Council to erect wrought iron gates at entrance to Bennett recreation ground, Station-rd. Plans by E. F. Massey, F.R.I.B.A., The Delph, Appleton, Cheshire.

Paisley.—Corporation intend to carry out scheme of reconstruction and additions at Riccartsbar Mental Hospital. J. Lee, Burgh Architect, Gilmour-st.

Penrith.—U.D.C. approved:—Kitchen & Atkinson, 12 houses, Folly-lane.

Redhill.—For the Redhill Wesleyan Central Hall, church and institute, the design of G. Baines & Son, FF.R.I.B.A., A.I.Struct.E., 121, Victoria-st., S.W.1, has been placed first by the Trustees.

Rochdale.—Health Committee proposing adaptation of old fire station and firemen's cottages in Bailey-st. as municipal clinic. Plans by B.S.

Rutland.—Parochial Council of Oakham Parish Church (Vicar, Rev. A. E. Fraser) propose schools. Plans by H. Francis Traylen, F.R.I.B.A., Diocesan Surveyor, 16, Broad-st., Stamford.

Sale.—Manchester and Salford Equitable Co-operative Society, Ltd., Downing-st., Ardwick, proposing branch on corner of Marsland-rd. and Wardle-rd., Brooklands.

Sandbach.—E.C. propose Council school at Rudheath.

Scarborough.—T.C. sold land to Church Extension Committee at corner of Scalby-rd. and Stepney-drive for church.—Plans passed by T.C.:—additions, Queen Margaret Schools, J. Brown; factory extensions, Durham-st., G. E. Moore; alterations, "Alma" inn, Alma-parade, G. H. Fawcett.

Severalls.—Essex C.C. recommend £7,500 for additions to original nurses' home.

Sheffield.—M.H. held inquiry into application by Corporation for sanction to borrow further money in connection with new public library and art gallery.

Sidcup.—U.D.C. approved plans provisionally:—New Ideal Homesteads, Ltd., 4 bungalows and 38 houses, Haddon-grove, and 20 lock-up shops and 26 shops, The Oval; C. & D. J. Barwell, 46 houses, Sidewood-rd.

Southampton.—C.B. approved: 9 shops and 18 flats, High-rd., W. J. Collins; 6 houses, The Drove, Coxford, N. P. Pearcey; 10 houses and shops, Coxford-rd. and The Drove, H. Nash; church and hall, Burgess-rd., Rector and Churchwardens, St. Alban's Church; rebuild premises, 180, 182 and 184, Above Bar-st., J. E. Maffey; additions, club premises, Warren-cres., Winchester Brewery Co., Ltd.; houses, Commercial-st., L. O. J. Southwell.

Southend-on-Sea.—C.B. approved scheme by Gregory & Newitt, structural engineers, for consent to provision of stadium upon land in Sutton-rd., forming part of Milton Hall Brickfields.

Southport.—Queen's Hotel Co., Ltd., Promenade, propose alterations to premises on Promenade. Plans by Finchett & Lancaster, architects, 13, Hoghton-st.

South Shields.—T.C. received sanction from M.H. to borrow £5,000 for 16 flats and four shops in connection with Tyne Dock housing scheme. Plans by B.E.

Sowerby Bridge.—Alterations proposed at Atkinson Mills, Watson-lane. Architects, Clement Williams & Son, Commercial-st., Halifax.

Staines.—U.D.C. to erect further 16 houses at Long-lane, Stanwell Moor.—Site also to be negotiated at Bedfont for housing purposes.—S. prepared scheme for drainage of Ashford and parts of Laleham and Staines, at £120,000.

Stanmore.—Hendon R.D.C. applying to M.H. for sanction to 26 houses in Marsh-lane.

Stockton-on-Tees.—T.C. made application to M.H. for 172 houses on Sunderland Glebe estate. J. P. Wakeford, B.E.

Stoke-on-Trent.—Catholic Authorities propose a secondary school for boys.

Stratford-on-Avon.—R.D.C. purchasing site at Wellesbourne for housing purposes.

Sudbury.—T.C. proposing 30 houses on Wents estate.

Sunderland.—Building of number of two-roomed houses recommended by Housing Committee. T. P. Collinge, B.E.

Sutton and Cheam.—Public Health and Housing Committee instructed Clerk to apply for approval of M.H. to erection of 140 houses at Worcester Park.

Thorne.—M.H. sanctioned 50 non-parlour type houses, by R.D.C. Scheme was for 150 houses.

Thornton Cleveleys.—U.D.C. approved: 16 houses and 12 garages, Bedford-av., S. Brockes.

Throckley.—C. O. Errington, 21, Grainger-st. West, Newcastle-on-Tyne, architect for church hall. Cost estimated at £2,000. Contract not yet placed.

Timperley.—Congregational Union propose church on Heyes-lane (secretary, E. Edge, "Alverston," 2, Kentington-gardens, Hale).—Parochial Council of St. Andrew's Church proposing edifice, Brook-lane (secretary, J. H. Simcock, 37, Stanley-ter.).

Tipperary.—Co. Tipperary S.B. Vocational E.C. applied for consent to borrow £4,000 for providing a technical school.

Tiverton.—R.D.C. approved:—Bank premises off Cullompton for the National Provincial Bank.

Tynemouth.—Town Clerk is to explain to M.H. required reasons for application to borrow £2,400 for proposed retaining wall, stores and offices at Union Quay. J. L. Beckett, B.S.

Urmston.—Urmston Hall Estate Co., 27, King-st., West Manchester, had plans prepared for 56 houses on Cumberland-rd. and Westmorland-rd.

Wealdstone.—Council approved plans for 3-story brick depository and warehouse by Pickfords, in Herga-rd.

Westcliff-on-Sea.—J. E. Adamson, L.R.I.B.A., architect, 56, Victoria-st., London, S.W.1, prepared plans for Pier-promenade, etc., at cost of £400,000.

West Hartlepool.—T.C. decided to borrow £6,260 from M.H. for 19 kitchen-type houses.

Wexford.—C.C. to seek loan of £2,000 for reconstructing the right wing of old jail for accommodation of county rural library service.

Wigan.—Extensions to be carried out to branch premises in Dawber-st. for Wigan and District Co-operative Society, Ltd., 98, Standishgate.

Wolverhampton.—Butler's Brewery Co., Ltd., propose to rebuild "Talbot Hotel."

Wolverhampton.—Association of Wolverhampton Wanderers Football Club propose improved accommodation at football ground at £18,000.

Worksop.—Co-operative Wholesale Society, Ltd., Balloon-st., Manchester, acquired Worksop Glass Works and additional land for extensions.

York.—Faculties been granted in Consistery Court at York to: Rev. A. Llewellyn Meyricke, vicar, and churchwardens, of parish of Aislaby, to insert stained glass in plain glazed window on south side of church, in memory of Capt. J. Stanley Harrowing, of Aislaby Hall.

BOOK REVIEW

The New Land Valuation and Land Value Tax, being Part III of the Finance Act, 1931, with an Introduction and Notes by E. M. Konstam, one of His Majesty's Counsel, and Michael E. Rowe, of Gray's Inn, Barrister-at-Law. London: Butterworth and Co., 1931. 21s. net.

When the new land taxation was introduced, it was asserted by the Chancellor of the Exchequer that the former Act dealing with land taxation in 1909-10 was a failure on account of its complication, and in the present measure he claimed to have attained greater simplicity. If anyone entertains hopes that compliance with the new Act will be a simple matter, we may refer him to this work produced by Mr. Konstam (who was the author of a leading treatise on the former Act) in conjunction with Mr. Rowe, for if anyone is capable of dealing clearly with the subject it must be Mr. Konstam, but we fear the reader's hopes will soon be dashed, as even the skill of these authors cannot conceal the complexity of the legislation. In their preface they express the opinion that "The Act has been drawn with great skill and subtlety, but it is by no means simple. It touches upon many different branches of the law; and its intricacies are enhanced by the great length of some of the sections, due, no doubt, to exigencies of Parliamentary procedure." We believe it was laid down by an old authority that taxation should be imposed in clear terms and be fair in its incidence, but the present Act fulfils neither of these requirements. It is far from clear in its terms, and it is unfair in incidence, as, besides being taxation laid upon a special class, it taxes improvements made at the cost of the landowner. The person taxed would always prefer fairness in incidence even to simplicity, but in this case it appears that some of the fairer points contained in the former legislation have been sacrificed to a simplicity aimed at in this Act by its framers, but not attained. The former Act endeavoured to tax only increment and to respect expenditure made by the owner, but the new Act proceeds on a different principle, that the possession of any land renders the owner liable to a tax which may be increased to any amount according to the political complexion of the Parliament of the day, the exemptions being mainly confined to Government Departments, local authorities, and certain companies and other public bodies. These latter observations are, however, entirely our own, as the authors of this treatise treat the matter entirely without any prejudice, with the sole intention of explaining the Act.

The Act is considered section by section, the text of each section being given with copious notes beneath, and it is explained in the preface that "the greater part of the notes (as of the introduction) has been devoted to the consideration of the provisions for valuation and exemption, both those which lay down principles and those which regulate the practice, including that of objection and appeal." There is a Table of Statutes and a Table of Cases and an index, and this work should prove invaluable to those who are subjected to this particular form of taxation. That is a large class, as, unlike its predecessor, there are no general exemptions in this Act for private owners, such as for small houses and gardens, except that under section 25, where a person is allowed to prove that the aggregate amount of the tax borne by him in respect of all land units does not exceed 10s. a year, and even here proof is laid upon the owner, and the relief, if granted, only applies to that year in which the claim is made; even owners of flats are indirectly affected. We think that the perusal of any treatise on this Act will soon convince those affected by its provisions that professional advice is essential, and this appears to us a great objection.

This treatise will prove extremely valuable to all those professional advisers who will be called in.

PRICES CURRENT OF MATERIALS.*

Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry

[PRINCIPAL CHANGES OF THE WEEK.—Lead, in all forms, drops by 15s. per ton.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge. £ s. d.
Best Stocks 4 3 6
Second Hard Stocks 3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross ...	2 11 3	Best Blue Pressed Staffs	9 5 0
Do., grooved for Plaster	2 13 3	Do. Bullnose	9 15 0
Do., Bullnose	3 5 3	Blue Wire Cuts	7 5 0
White Midhurst Facing Bricks (delivered London site)	5 0 0		
Best Stourbridge Fire Brick :—			
2½ in.	8 11 0	3 in.	10 3 0
GLAZED BRICKS—			
Best White Ivory and Salt Glazed Stretcher	21 0 0	D'ble Str'tch'rs	29 10 0
		D'ble Headers	26 10 0
		One Side and two Ends	30 10 0
		Two Sides and one End ...	31 10 0
Quoins, Bullnose and 4½ in. Flats	27 10 0	Splays, and Squints ...	28 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours. Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	1 11	3 in. per yd. super	2 9
2½ in. „ „	2 4	4 in. „ „	3 6

	s. d.	
Thames Ballast	8 0	per yd.
Pit Sand	11 0	„ „
Thames Sand	11 0	„ „
Best Washed Sand	11 6	„ „
½ in. Shingle for Ferro-Concrete	8 6	„ „
½ in.	11 0	„ „
½ in. Broken Brick	10 6	„ „
Pan Breeze	8 0	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

	Best Portland Cement.	British Standard Specification. Test
In Jute Sacks (11 to ton)	£2 4 9	to £2 6 9
In Free Paper Bags (20 to ton) ...	2 6 0	to 2 8 0
Alongside Vauxhall in 60 Ton Lots		
Jute Sacks (11 to ton)	1 17 9	
Free Paper Bags (20 to ton)	1 19 0	
Ferrocrete per ton extra on above	0 7 6	
Vitocrete per ton extra on above	0 7 6	
Lightning Brand Aluminous Cement in Jute Sacks (20 to ton)	5 2 9	to 5 8 3

NOTE.—Jute Sacks are charged 1s. 6d. each and credited 1s. 6d. each nett if returned in good condition within three months carriage paid.

Super Cement (Waterproof) Paper Bags free	3 16 0
Ciment Fondu (F.O.R. Works)	4 15 0
Roman Cement	6 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	4 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	1 17 6
Hair ..... per cwt.	2 2 6
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months carr. pd.

Stourbridge Fireclay in s'cks 37s. 0d. per ton at rly. dp.

STONE.

	s. d.
BATH STONE.—Delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 10
BEER STONE.—RANDOM BLOCK—	
Free on rail at Seaton Station per ft. cube	2 3
Delivered free on rail Nine Elms, S.R. per ft. cube	3 1½
Selected approximate size one way, 1d. per cubic foot extra; selected approximately three sizes or for special work, 3d. per cubic foot extra.	
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, S. Rly., South Lambeth Station, G.W.R., and Westbourne Park Paddington, G.W.R., per ft. cube	4 4½
Do. do. delivered on road waggons at above stations, per ft. cube	4 5½
White basebed, 3d. per ft. cube extra.	
NOTE.—1d. per ft. cube extra for every foot over 20 ft. average, and ½d. beyond 30 ft.	
CHILMARK—RANDOM BLOCK—	
At Nine Elms, per ft. cube	3 11
HOPTON-WOOD STONE—	
F.O.B. Quarries, Wirksworth, Derbyshire.	s. d.
Random blocks from 10 ft. and over P. ft. cb.	14 0
Sawn two sides ..... „	22 6
Sawn three or four sides ..... „	27 6
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station, London.	
6 in. sawn two sides landings to sizes (under 20 ft. super) ..... Per ft. super	5 6
6 in. rubbed two sides, ditto ..... „	6 0
3 in. sawn two sides slabs (random sizes) „	2 3½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... „	1 6½
1½ in. to 2 in. ditto., ditto ..... „	1 3½
HARD YORK—	
Delivered at any Goods Station, London.	s. d.
Scappled random blocks ..... Per ft. cube	6 3
6 in. sawn two sides landing to sizes (under 40 ft. super) ..... Per ft. super	5 1½
6 in. rubbed two sides, ditto ..... „	6 1½
4 in. sawn two sides slabs (random sizes) „	3 1½
3 in. ditto ditto „	2 8
2 in. self-faced random flags ..... Per yd. super	8 0

CAST STONE.

Delivered in London area in full van loads, per ft. cube: Plain, 8s. 6d.; Moulded, 9s. 6d.; Cills, 10s. 0d.

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£24 10	3 × 6	£17 0
4 × 9	20 0	3 × 11	19 10
4 × 8	20 0	2 × 11	19 10
4 × 7	18 0	3 × 9	19 10
3 × 8	18 0	2½ × 9	19 10
3 × 7	18 0	3 × 4½	17 10
2½ × 7	18 0	3 × 4	17 10

PLANED BOARDS.

1 × 11	£22 10	1 × 9	£21 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
½	16/-	1½	25/-
¾	17/-	1¼	27/6
1	20/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	21/-
1½	26/-
1½	27/6

MATCHING (BEST).

Inches.	per sq.
½	15/-
¾	16/6
1	20/-

	s. d.		s. d.
ins. BATTENS.		SAWN LATHS.	
½×2 ..... per 100 ft.	2 0	Per bundle	2 3

1 INCH AND UP THICK.

Average price for prime quality.

	£ s. d.
Dry Austrian Wainscot, per ft. cube	0 15 0
Dry American and/or Japanese Figured Oak, per ft. cube	0 12 0
Dry American and/or Japanese plain Oak, per ft. cube	0 10 0
Dry sq. edged Honduras Mahogany, per ft. cube	0 14 0
Dry log-cut Honduras Mahogany, per ft. cube	0 16 0
Dry Cuba Mahogany, per ft. cube	1 1 0
Dry Teak, per ft. cube	0 14 0
Dry American Whitewood, per ft. cube	0 10 0
Best Scotch Glue, per cwt. ... £4 10 0	to —
Liquid Glue, per cwt. 4 7 0	to 5 10 0

SLATES.

First quality slates from Bangor or Portmadoc, carriage paid in full truck loads to London Rate Station. Per 1,000 actual.

	£ s. d.		£ s. d.
24 by 12	30 0 0	18 by 10	16 10 0
22 by 12	26 10 0	18 by 9	14 12 6
22 by 11	24 10 0	16 by 10	14 5 0
20 by 12	24 0 0	16 by 8	11 0 0
20 by 10	20 2 6		

TILES.

Delivered at London rate stations in full truck loads of not less than 6 tons. Per 1,000.

f.o.r. London.

Best machine-made tiles from Broseley or Staffordshire district	£4 10 0
ditto hand-made ditto	5 3 6
Ornamental ditto	5 8 6
Hip and valley tiles (per dozen) { Hand-made	0 9 6
{ Machine-made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION, PER TON—	
R.S. Joists, cut and fitted	£11 0 0
Plain Compound Girders	12 0 0
„ Stanchions	15 0 0
In Roof Work	18 0 0

MILD STEEL ROUNDS.—To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	12 0 0	⅝ in. to ¾ in.	10 15 0
⅜ in.	11 0 0	⅞ in. to 2½ in.	10 10 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward, if sent from London Stocks.)

	Standard Wrot. Mild Steel Tubes and Tubulars Sizes ⅜in. to 6in. %	Genuine Wrot. (Puddled) Iron Tubes and Tubulars Sizes ⅜in. to 6in. %	Standard Fittings Sizes ⅛in. to 6in. %	Standard Flanges Sizes ⅜in. to 6in. %
Gas	65	52½	57½	70
Water ...	61½	48½	52½	65
Steam ...	57½	45	47½	60
Galv. gas	52½	40	47½	60
Galv. water	47½	35	42½	55
Galv. steam	42½	30	37½	50

C.I. HALF-ROUND GUTTERS—London Prices ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	11d.	1/5	5d.
3½ in.	11½d.	1/7	5d.
4 in.	1/-	1/9	5d.
4½ in.	1/1½	2/-	6d.
5 in.	1/5	2/2	8d.
O.G. GUTTERS.			
3 in.	1/1	1/11	5d.
3½ in.	1/2	1/11	5d.
4 in.	1/2½	2/-	5d.
4½ in.	1/4	2/4	6d.
5 in.	1/6½	2/8	8d.

RAIN WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in.	1/3½	1/9	2/7
2½ in.	1/4½	2/-	3/1
3 in.	1/8½	2/6	3/9
3½ in.	2/1½	3/-	4/4
4 in.	2/5	3/7	5/3

Connections—50 per cent. off above prices.

Tonnage allowance—4 ton lots, 5 per cent.
2 ton lots, 2½ per cent.

L.C.C. COATED SOIL PIPES—London Prices ex Works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6 fts.	1 11	1 6½	1 10½
2½ in. „	2 3½	1 8½	2 4
3 in. „	2 4½	1 10½	2 9½
3½ in. „	2 7	2 4	3 3
4 in. „	2 11	2 7½	3 9

L.C.C. COATED DRAIN PIPES—London Prices ex Works.

	Pipe.	Bends, stock angles.	Branches. stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9 ft. lengths ...	3 4	4 3	6 8
	cwt. qr. lbs.		
4 in. „	1 1 20 ...	4 7	5 2	8 10
5 in. „	1 2 22 ...	6 0	9 0	14 3
6 in. „	2 0 6 ...	6 8	10 11	18 1

Gaskin for jointing 41/- per cwt.

IRON—	Per ton in London. £ s. d.		£ s. d.
Common bars	10 10 0	to	11 0 0
Staffordshire Crown Bars—			
Good merchant quality ...	10 15 0	to	11 10 0
Staffordshire Marked Bars	14 0 0	...	15 0 0
Mild Steel Bars	9 10 0	...	10 0 0
Steel Bars, Ferro-Concrete quality, basis price	8 0 0	...	9 0 0
Hoop iron, basis price	11 0 0	...	12 0 0
„ Galvanised	27 0 0	...	28 0 0
Soft Steel Sheets, Black—			
Ordinary sizes, to 20 g.	11 0 0	...	11 10 0
„ „ „ 24 g.	12 0 0	...	13 0 0
„ „ „ 26 g.	14 0 0	...	15 0 0
Sheets Flat Best Soft Steel, C.R. and C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g. ...	13 10 0	...	14 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	14 10 0	...	15 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g. ...	17 10 0	...	18 10 0
No. 1 quality £4 per ton extra.			
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	13 0 0	...	14 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	14 10 0	...	15 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	16 10 0	...	17 10 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. to 20 g. and thicker	18 0 0	...	19 0 0
Best Soft Steel Sheets, 22 g. and 24 g.	20 0 0	...	22 0 0
Best Soft Steel Sheets, 26 g.	21 10 0	...	23 0 0
Cut Nails, 3 in. to 6 in. ...	15 0 0	...	16 0 0
(Under 3 in. usual trade extras.)			

METAL WINDOWS.—Standard sizes, suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1s. 4d. to 1s. 7d. per foot super.

COPPER.

	s. d.
Seamless Copper tubes (basis ..... per lb.	0 9½
Strong sheet ..... „	0 10
Thin ..... „	0 11
Copper nails ..... „	1 0
Copper wire ..... „	0 11

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
29/- 45/- 76/- 153/- 246/- 510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
41/6 62/- 92/- 174/- 300/- 588/- per doz.

RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in. ¾ in. 1 in.
39/6 60/- 116/6 per doz.

CAPS AND SCREWS.

1¼ in. 1½ in. 2 in. 3 in. 3½ in. 4 in.
7/6 10/- 14/- 23/- 30/- 42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in. ¾ in. 1 in. 1¼ in. 1½ in. 2 in.
7/6 11/- 17/- 29/- 36/- 63/- per doz.

BRASS SLEEVES.

1¼ in. 2 in. 3 in. 3½ in. 4 in.
10/- 12/- 20/- 24/- 31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES S.F.

½ in. ¾ in. 1 in. 1¼ in. 1½ in.
35/- 56/- 98/- 162/- 228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

1¼ in. 1½ in. 2 in. 3 in.
8 lbs. P. traps ... 33/- 41/- 56/- 101/- per doz.
8 lbs. S. traps .. 35/- 45/- 66/- 126/- „

TIN.—English Ingots, 1/7 per lb. SOLDER.—Plumber's 9d., Tinmen's 10d., Blowpipe 11d. per lb.

* The information given on this page has been specially compiled for THE BUILDER, and is copyright. The aim in this list is to give, as far as possible, the average prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS—(*cont.*)

LEAD, &c.

(Delivered in London.)	£	s.	d
LEAD—Sheet, English, 4 lb. and up	19	15	0
Pipe in coils	20	5	0
Soil pipe	23	5	0
Compo pipe	23	15	0

NOTE.—Country delivery, 20s. per ton extra; lots under 3 cwt. 3s. per cwt. extra, and over 3 cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes 5s. cwt. extra.

Old lead, ex London area, at Mills .....per ton £9 5 0

PAINTS, &c.

		£	s.	d
Raw Linseed Oil, in pipes	per gallon ...	0	1	11
,, ,, ,, in barrels ...	,, ...	0	2	1
,, ,, ,, in drums ...	,, ...	0	2	4
Boiled ,, ,, in barrels ...	,, ...	0	2	5
,, ,, ,, in drums ...	,, ...	0	2	7
Turpentine in barrels	,, ...	0	5	0
,, in drums (10 galls.)	,, ...	0	5	2
Genuine Ground English White Lead, per ton (In not less than 5-cwt. casks.)		45	0	0

Extra for 1-cwt. kegs over 5-cwt. casks is 5/0 cwt.

GENUINE WHITE LEAD PAINT.

"Father Thames." "Nine Elms," "Park," "Supremus," "St. Paul's," "Morganswyte," "Polacco," "J" Brand, and other best brands (in 14-lb. tins) not less than 5 cwt. lots. £ s. d.

per ton delivered	63	0	0
Red Lead, Dry (packages extra) ... per ton	34	0	0
Best Linseed Oil Putty ..... per cwt.	0	13	6
Size. XD quality ..... fkn.	0	3	0

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

Per ft.		Per ft.
15 oz. fourths ... 2½d.	32 oz. fourths	7½d.
15 ,, thirds ... 3½d.	32 ,, thirds.....	9½d.
21 ,, fourths ... 3½d.	Obscured Sheet, 15 oz. ...	3½d.
21 ,, thirds ... 4½d.	,, ,, 21 oz. ...	4½d.
26 ,, fourths ... 4½d.	Fluted, 15 oz. 7d., 21 oz....	9½d.
26 ,, thirds ... 7½d.	Em'lled, 15 oz. 4½d., 21 oz.	6d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED plate in CRATES OF STOCK SIZES.

	Per ft.
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish White	5½d.
Ditto, tinted	8d.
Rolled Sheet	4½d.
White Rolled Cathedral	4½d.
Tinted do.	6½d.

Cast plate is same price as rough rolled.

"VITA" GLASS.	Per foot. s.	d.
Clear sheet—not exceeding 1 foot	1	0
Do. do. 2 feet	1	3
Do. over 2 feet	1	9
Polished plate—not exceeding 1 foot	1	6
Do. not exceeding 2 feet.....	3	0
Cathedral—not exceeding 1 foot	1	0
Do. larger sizes	1	6
Horticultural—for greenhouses, etc. Sizes up to 24 inches by 18 inches or not exceeding 3 feet	1	0
3/16 in. Wired Georgian Design. Sizes up to 108 inches long by up to 24 inches wide	2	6

VARNISHES, &c.

		Per Gallon. £	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Opal Carriage	ditto	1	4	0
Best ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	0
Fine Copal Flatting	ditto	1	0	0
Hard Drying Oak	ditto	0	18	6
Fine Hard Drying Oak	ditto	0	19	6
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	12	6
Best ditto	ditto	1	2	6
Best Japan Gold Size		0	12	0
Best Black Japan		0	10	0
Oak and Mahogany Stain (water)		0	12	6
Brunswick Black		0	7	0
Berlin Black		0	14	0
Knotting (patent)		1	5	0
French and Brush Polish		0	17	0
Liquid Dryers in Terebene		0	9	0
Cuirass Black Enamel		0	7	0

Building Science Abstracts.

Issued under the ægis of the Department of Scientific and Industrial Research, Building Science Abstracts, Vol. V (New Series), No. 4, for April, 1932, comprising Abstracts Nos. 576-746, are now on sale. Price 1s. net (annual subscription 13s. net post free), copies are obtainable from His Majesty's Stationery Office at Kingsway, W.C.2, or elsewhere.

NEW CINEMAS

Coventry.—Mr. W. Glen, staff architect to the Associated British Cinemas, Ltd., Heddon House, Regent-street, W., has prepared plans for a new cinema on the site of the Empire in Hertford-street, burnt down in 1931. The accommodation will be for approximately 1,750 persons. No contract has yet been settled.

Hornchurch.—Plans have been prepared by Mr. L. H. Kemp, A.R.I.B.A., 38, John-street, Bedford-row, W.C.2, for a new cinema, to seat nearly 3,000, hall, lounge and shops to be erected in High-street. The cost is expected to be about £75,000. Although preliminary plans have been passed by the U.D.C., it is learnt that there will be some delay before the scheme goes forward.

Urmston.—A local syndicate (secretary, Mr. J. L. Lillicrop, "Staincross," Urmston) proposes to erect a super cinema in Atkinson-road and Gloucester-road, Urmston. Plans have been prepared by Mr. W. Thornley, L.R.I.B.A., architect, 46A, Wallgate, Wigan.

Southport.—Mr. Albert Schofield, architect, 413, Lord-street, is preparing plans for the proposed alterations at the Savoy Cinema for Messrs. Birkdale Picture Palace, Ltd., 413, Lord-street.

West Cornforth (Co. Durham).—Plans have been passed by the Sedgefield R.D.C. for the conversion of the old schoolrooms into a cinema for Mr. W. W. Turnbull, "Hillcrest," Bowburn, near Coxhoe. The plans show seating accommodation for 650, 500 on the floor and 150 in the circle. The architect is Mr. G. L. Salkeld, 11, Kensington-gardens, Ferry-hill. A contract has not yet been let.

NEW BUILDINGS IN SCOTLAND

The Editor would be glad to receive information for publication under this heading from architects, builders, or other persons concerned. Items should be received at THE BUILDER *Office not later than Wednesday morning.*

Cupar.—HOUSES.—The Town Council has decided to build 20 additional three-roomed and four two-roomed houses on the Kinloss estate. Mr. A. D. Haxton, of Leven, is the architect.

Edinburgh.—STAND.—The Dean of Guild Court has granted an application for a covered stand at the Marine Gardens, Portobello, for the new track being erected by the Greyhound Racing Association, Ltd.

Falkirk.—BUILDING.—Building schemes involving a total expenditure of over £42,000 have been sanctioned by the Dean of Guild Court. Falkirk Town Council—128 houses of the three- and four-apartment type are to be erected at Millflats, Bainsford, at £36,000. The Grahamston Iron Company have been granted a warrant to erect a new enamelling shop at their Gowan Avenue Foundry.

Largs.—BUILDING.—Plans have been passed by the Dean of Guild Court for eight bungalows and one shop.

PATENTS

APPLICATIONS PUBLISHED.

369,957.—A. Delpech: Walls.

369,979.—F. G. Small: Methods of and materials for road construction.

370,013.—R. P. Heuer: Refractory brick, and the method of manufacturing same.

370,063.—G. Desagnat: Process for covering walls.

370,068.—F. B. Dehn (Camel Co.): Supporting means for sliding doors.

370,070.—S. T. Plume: Paint solvent for removing paints and varnishes.

370,071.—W. Holmes and E. A. Chambers: Door-step, sill, or threshold.

370,074.—S. P. Bryan: Latches.

370,143.—S. E. Beeson, A. P. Hurden, and E. Hurden: Roofing tiles or sheets.

370,161.—J. L. Musgrave, R. G. Crittall, and R. Crittall & Co., Ltd.: Ventilating systems.

370,164.—B. Morton, jun., and H. D. Morton: Pre-cast beams for concrete floors and roofs.

370,173.—Central Joinery Co. (1927), Ltd., and O. E. Twigg: Doors.

370,184.—J. G. M. Wylie: Chimney can or cowl.

370,195.—J. W. E. Norman: Gully-pot.

370,197.—Scaffolding (Great Britain), Ltd., and D. Palmer-Jones: Toe or guard-board clips for tubular scaffolding.

370,206.—A. A. A. Byrd: Portable mixing apparatus for cement.

370,275.—E. Schlagintweit and J. Carmichael: Reinforced concrete construction.

370,285.—J. H. Frydlender: Mortar.

370,331.—G. Makepeace and R. Hemming: Manufacture of bricks.

370,333.—W. H. Possnett: Devices for trimming wallpaper.

370,339.—F. Coleman: Machine for raising or mixing sand, grit, chippings, and other granular or finely divided materials.

Note.—Period for opposition expires June 13, 1932.

NEW COMPANIES

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 and 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

ROBERT A. ANDERSON (SLATERS), LTD. (265,397). Registered May 17. Slaters, tilers, etc. Nominal capital, £500. R. A. Anderson, 15, North King-street, North Shields.

JOSIAH F. LORD, LTD. (265,450). Registered May 19. Slate and builders' merchant. Liverpool-road, Manchester. Nominal capital, £5,000.

P. PHILLIPSON, LTD. (265,453). Registered May 19. 141, Furlong-road, Goldthorpe, Yorks. Joiner, etc. Nominal capital, £200.

T. ADDIS & SONS (NEWPORT), LTD. (265,460). Registered May 19. 59, Balmoral-road, Newport, Mon. Builders and contractors. Nominal capital, £2,000.

BUILDING TRADE WAGES IN SCOTLAND*

Following are grade rates authorised by the Scottish N.J.C. for Building Industry. The bricklayers in the Glasgow district have ½d. per hour extra. It should be noted that plasterers and painters who are not parties to the Scottish N.J.C. pay higher wages of 1d. and ½d. per hour extra respectively. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur.

Grade Classifications ...	A	A¹	A²	A³	B	B¹	B²	B³
Craftsmen	1/6½	1/6	1/5½	1/5	1/4½	1/4	1/3½	1/3
Labourers	1/2	1/1½	1/1½	1/0½	1/0½	1/-	/11½	/11½

Aberdeen	A	Dundee	A	Hawick	A²	Perth	A
Airdrie	A	Dunfermline	A	Helensburgh	A	Perthshire	A²
Alexandria	A	Duncon	A	Inverness	B	Peterhead	A²
Arbroath	A²	East Lothian	A	Kilmarnock	A	Renfrewshire	A
Ayrshire	A	Edinburgh	A	Kincardineshire	A²	Rothesay	A
Bathgate	A	Falkirk	A	Kinross-shire	A	Roxburghshire	A²
Bo'ness	A	Forfarshire	A²	Kirkcaldy	A	St. Andrews	A
Broughty Ferry	A	Fort William	A	Lanarkshire	A	Selkirkshire	A²
Clackmannanshire	A	Galashiels	A²	Leith	A	Stirling	A
Coatbridge	A	Glasgow	A	Midlothian	A	Stirlingshire, West	A²
Dumbartonshire	A	Greenock	A	Motherwell	A	West Lothian	A
Dumfries	A²	Hamilton	A	Peeblesshire	A²	Wishaw	A
Dumfriesshire	A²						

* The information given in this table is copyright. The rates of wages in various towns in England and Wales are given on page 989.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	9	9
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	4
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	27	0
Add if in underpinning in short lengths	" "	6	0
Add if in floors 6 in. thick	" "	2	6
Add if in beams	" "	3	0
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	2	0

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	1	5	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	0	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	0
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks		4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard super	4	6
Three-quarter-inch vertical damp course	" "	9	6
Three-quarter-inch on flats in two thicknesses	" "	6	0
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	0

MASON.

York stone templates fixed	per foot cube	13	0	
York stone sills fixed	" "	22	0	
Bath stone and all labour fixed	" "	10	6	
Beer stone and all labour fixed	" "	15	0	
Portland stone fixed	" "	20	0	
Chilmark stone fixed complete	" "	17	6	

SLATER.

Welsh 16in. × 8 in. 3 in. lap, including nails	per square	72	9	
Do. 20in. × 10 in. Do. Do.	"	80	9	
Do. 24in. × 12in. Do. Do.	"	90	0	

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	4	3	
Do. joists	" "	4	9	
Do. roofs, floors and partitions	" "	5	3	
Do. trusses	" "	7	9	

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	33/6	38/-	43/-	70/-

Flat centering for concrete floor, including struts or hangers	"	50	0	
Do. to beams	per ft. sup.	0	9	
Centre for arches	"	1	6	
Gutter boards and bearers	"	1	0	

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.	—	42/6	50/-	57/6
Do. tongued and grooved	"	—	47/-	56/-	64/-
Do. matchings	"	44/-	49/-	—	—
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/-	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	3
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2in. moulded sashes in squares, double hung, double hung with pulleys, lines and weights; average size		3	9

DOORS.

		1¼"	1½"	2"
Two-panel square framed	per ft. sup.	2/1	2/3	2/5
Four-panel Do.	"	2/4	2/6	2/9
Two-panel moulded both sides	"	2/6	2/9	2/11
Four-panel Do. Do.	"	2/9	2/11	3/2

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/7	1/8	1/11
Deal shelves and bearers	"	1/4	1/6	1/9
Add if cross-tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. x 1¼ in	per ft. run	0	9
Mahogany handrail, average, 3 in. x 3 in.	" "	6	0
Add if ramped	" "	12	0
Add if wreathed	" "	24	0

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/-
Sash fasteners	11½d.	Mortice locks	4/6
Casement fasteners	1/5	Patent spring hinges and letting into floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	15	3
Plain compound girders	"	18	0
Do. stanchions	"	20	9
In roofwork	"	26	6

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/4	1/7	1/9	2/-
Ogee Do. Do.	"	1/6	1/9	2/3	2/9
Rain-water pipes with ears	"	1/6	2/4	—	—
Extra for shoes and bends	each	3/4	4/11	—	—
Do. stopped ends	"	1/6	1/10	2/9	3/3
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	40	0
Do. Do. flats	"	39	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run	0	6
Soldered seam	" "	1	3
Copper nailing	" "	0	3

	½"	¾"	1"	1½"	2"	4"
Drawn lead waste per ft. run	1/1	1/7	1/10	3/-	3/6	—
Do. service "	1/6	2/-	2/5	3/6	—	—
Do. soil "	—	—	—	—	—	6/-
Bends in lead pipe each	—	—	—	—	3/-	6/6
Soldered stop ends "	1/-	1/4	1/9	2/6	3/2	—
Red lead joints "	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints "	2/6	3/-	3/6	4/4	5/6	7/9
Lead traps and cleaning screws "	—	—	—	12/7	17/6	—
Bib cocks and joints "	6/4	9/7	15/4	41/-	—	—
Stop cocks and joints "	15/4	17/2	25/8	64/-	—	—

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add saw lathing	" "	1	7
Add metal lathing	" "	2	6
(Not including hangers or runners, etc., for suspended ceilings.)			
Portland cement screed	" "	2	2
Do. plain face	" "	3	3
Mouldings in plaster	per 1 girth	0	1
One-and-a-half granolithic pavings	per yard sup.	5	3½

GLAZIER.

21-oz. sheet plain	per foot sup.	0	7½
26-oz. Do.	" "	0	10
Obscured sheet	" "	1	1
¼-in. rolled plate	" "	0	9
¼-in. rough rolled or cast plate	" "	0	10
¼-in. wired cast plate	" "	1	3

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting, 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece, 2/- to 4/-		

*These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Act, and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS

Sound-deadening Quilt.

Sound-deadening and acoustic work continue to assume greater importance in present-day building operations. The increasing demand for "Cabot's Quilt" has at last made it possible to erect a production plant in this country. "Cabot's Quilt" now becomes a British product, financed entirely by British capital and made from British materials. Messrs. Huntley and Sparks, Ltd., are to be congratulated upon this development, which will help to provide employment for British workers, both at the new plant at Wimbledon and also at the sources from which large quantities of raw material will be obtained.

Light-reflecting Bricks.

Considerable extensions are now being carried out at the Arsenal Football Ground. One particular feature of the building which will be readily noticeable is the use of "Midhurst Whites." These bricks, supplied and made by the Midhurst Brick Co., Ltd., of Windsor House, Victoria-street, and Midhurst, Sussex, have all the light-reflecting properties of other white bricks, but it is claimed for them that, in addition, no glare is given off and that atmospheric deposits do not readily adhere—an important point in subsequent upkeep. There is a decided vogue for "Midhurst Whites" at present, and the makers report an increase in sales of 650 per cent. during the last year alone.

These bricks are made on the Michaelis process, and we take the following description from an article by Mr. Benjamin Cloke in the current issue of the *Parthenon*: "The Michaelis process consists of the binding of lime and sand together under a high pressure of steam, an industry which has assumed large dimensions in Germany and America, and which has now become a permanent and growing trade in this country, due to the high quality of the bricks produced and the fact that the process is speedier. . . . They have many advantages to commend them over burnt-clay bricks, such as freedom from efflorescence, regularity in shape, uniformity of composition, and a crushing strength second only to Staffordshire blue and similar engineering bricks. It is also of interest to note that they withstand our climatic conditions. Houses built of this class of brick some twenty years ago, when the industry was in a more or less experimental stage, show now that the brickwork is even harder and stronger than it was originally, without the slightest trace of crumbling so often noticed on the edges of building stone due to the deleterious gases in the atmosphere."

"Sands, Clays and Minerals."

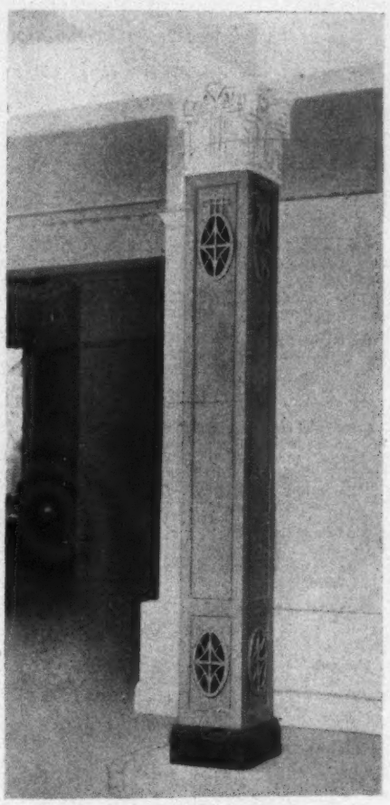
We have received a copy of a new magazine "devoted to economic minerals," which is published by Mr. Algernon Lewin Curtis, from Chateris, Westmorland The magazine contains much interesting matter connected with sands, clays and minerals. The magazine, it is stated, "has a triple programme. First, it seeks to help British trade by promoting closer co-operation between the various industries. Second, it aims at giving practical and reliable knowledge on sands, clays, etc., to manufacturers and other business men into whose industries these materials enter. Lastly, it aims at interesting all those who are in any way concerned with the minerals which the earth's crust provides for the thousand-fold use of mankind." The first number certainly fulfils these aims. Clay-workers particularly should be interested in the article on "A Simple Way to Analyse Clay." Ores, sands, slates and Portland cement are other subjects treated with. The subscription for four quarterly issues is 5s. per annum.

Craftsmanship in Clay.

In a recent discussion, a well-known architect stated that, in spite of modern methods of construction and new materials, the old and tried materials of stone and brick would maintain their accustomed place in the scheme of things. We believe this to be so, at any rate for certain classes of buildings, and nothing appears in a recently received catalogue, "Ibstock Craftsmanship in Clay," to cause us to alter our opinion. Issued by the Ibstock Collieries, Ltd., of Ibstock, Leicestershire, this booklet illustrates in colour the extensive range of delightful bricks and tiles made by this firm. The catalogue is especially useful to architects, as the wide variety of shapes in which the various kinds of brick and tile are made is diagrammatically shown. The colour printing is of a very high order, and the production is one which architects will usefully keep for reference.

Heating Columns.

Our readers will be interested in a photograph of a heated column which is reproduced on this page. This column is one of a number



Heating by Column.

installed at Messrs. Kennards (Wimbledon), Ltd., by Messrs. Benham and Sons, Ltd., of 66, Wigmore-street, W.1. The architects for this building were Messrs. George Baines and Son, who, together with Messrs. Benham's, designed the columns, which are heated by means of hot-water coils and provide both radiant heat from the surfaces as well as convective heat from the top.

Roofing Felt for South Africa.

H.M. Trade Commissioner at Johannesburg reports that the South African Railways and Harbours Administration is calling for tenders (Tender No. 2044), to be presented in Johannesburg by July 25, for the supply of 1,360 rolls of roofing felt. Further particulars of this call for tenders have been communicated by the Department of Overseas Trade to firms whose names are entered on its Special Register. Firms desirous of offering goods of United Kingdom manufacture can obtain further particulars, together with particulars of the Department's Special Register service of information, upon application to the Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference number B.X.7339 should be quoted.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*.
† Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.
¶ Denotes *accepted by H.M. Office of Works and H.M. War Office*.

Alwoodley.—Residence at Sandmoor-drive, for Mr. C. Sumrie. Mr. C. Castelow, architect, Park-row, Leeds:—

*Wm. Thompson & Sons, Ltd.

Ampthill.—Two houses, Pine Hill, Clop Hill; 4 houses, East End, Cranfield; 2 houses, Sundon-road, Harlington; 4 houses, near station, Lidlington; 2 houses in Clophill-road, Maulden, for the R.D.C. Mr. L. Foster, surveyor Flitwick, Bedford:—

Two houses—Pine Hill, Clophill—	
‡A. T. Bottoms, Silsoe, Bedford	£712 0
Four houses—East End, Cranfield—	
‡Saml. Foster, Ltd., Kempston, Bedford	£1,319 10
Two houses—Sundon-road, Harlington—	
‡D. Nott, Caddington, Luton	£680 0
Four houses—station-road, Lidlington—	
‡D. Nott, Caddington, Luton	£1,360 0
Two houses—Clophill-road, Maulden—	
‡A. T. Bottoms, Silsoe, Bedford	£689 12

Barking Town.—Sanitary fittings at Dawson and Monteagle infants' schools and schools "B," "F," "G" and "H," for the T.C.:—

*T. A. Harris, Ltd. £1,324 10

Barnard Castle.—Banking premises, for the Yorkshire Penny Bank, Ltd. Bank Architect, Infirmary-street, Leeds:—

*N. Thompson, Linthorpe.

Barnet.—For extensions to the nurses' home, etc., at Middlesex County Sanatorium, Clare Hall, South Mimms, Barnet, Herts, for the County Council of Middlesex. Mr. W. T. Curtis, F.R.I.B.A., County Architect, 10, Great George-street, Westminster, S.W.1.:—

C. Cullen & Sons, Barnet	£10,892
Henry Norris & Son, Hertford	9,448
C. Miskin & Sons, Ltd., St. Albans ...	9,322
Henry Knight & Son, Ltd., Tottenham	9,319
A. Fairhead & Sons, Ltd., Enfield ...	9,286
A. Monk, Lower Edmonton, N.	9,260
Y. J. Lovell & Son, Gerrard's Cross	9,242
Newby Bros., Ltd., Southgate	9,238
H. E. Winskell, Barnet	8,933
L. & W. Whitehead, Ltd., S.W.9 ...	8,926
W. S. Try, Uxbridge	8,925
‡John Laing & Son, Ltd., Mill Hill ...	8,653

Baromy.—Housing scheme at Shettleston, for the twenty Improvement Trust Houses. Mr. Peter Smith, County Architect, Clydesdale-street, Hamilton:—

Excavation, brick and mason—	
*Wm. Fyfe, Cambuslang	£2,465 19 2
Painter—	
*J. C. Sweet, 47, Baillie's-causeway, Hamilton	184 1 10½
Plumber—	
*Robt. S. Renfrew & Co., Ltd., North-street, Charing Cross, Glasgow	721 1 2
Joinery, carpentry and ironmongery—	
*George Wilson (Stonehouse), Ltd., Kirk-street Works, Stonehouse...	1,812 18 0½
Plaster—	
*William Walker & Sons (Glasgow), Ltd., Eglinton-street, Glasgow, S.S.	399 0 6

Barrow-in-Furness.—Lecture-hall and class-rooms on Baden Powell-street, Walney, for Trustees of the Presbyterian Church of England. Messrs. Morter and Dobie, Architects, The Temple, 24, Dale-street, Liverpool:—

*Rainey Bros., Barrow-in-Furness.

Bedford.—12 cottages at Kempston, for the R.D.C. Mr. T. R. Chapman, architect, 81, High-street:—

R. Jeakings, Bedford	£4,247
Warton & Goodship, Bedford	4,134
E. Valentine, Bedford	4,087
D. Nott, Caddington	4,067
J. B. Saunderson, Bedford	3,869
S. Foster, Ltd., Kempston	3,867
J. C. Tarry, Newport Pagnall	3,840
C. Hutchinson, Potton	3,730
Townsend & Watts, St. Neots	3,730
Beaumont & Taylor, Henlow	3,703
*H. Fidler & Son, 130, Richmond Hill, Luton	3,660

Belfast.—Installation of electric lighting at the Grosvenor public elementary school, Roden-street, for the Corporation:—

*G. McCartney, 30, Church-street, Belfast £483

Birmingham.—Shops in Castle-square, Weoley Castle estate, for Messrs. Ten Acres and Stirchley Co-operative Society, Ltd., Umberslade-road, Stirchley. Plans by Mr. H. W. Simister, architect, Norwich Union-chambers, Congreve-street:—

*J. H. Parsons, Birmingham.

Bournemouth.—Shipfront at 4, Westover-road:—

*A. Edmonds & Co., Ltd., Constitution-hill, Birmingham.

Bothwell.—Catholic Retreat. Mr. Donald Cameron, architect, 183, West George-street, Glasgow :—

Excavation, brick and mason—*W. McGhee, 29, Greenhill-road, Paisley.
Joinery, carpentry and ironmongery — *John Livingston & Son, Ltd., West Regent-street, Glasgow.
Plumber—*W. McNair, 351, Eglinton-street, Glasgow.
Plaster work, slating and roughcasting—*Peter Wheld & Co., Ltd., Paul-street, Parliamentary, Glasgow.

Bridlington.—Superstructure and completion of new concert hall, for the T.C. Mr. P. Maurice Newton, A.R.I.B.A., Borough Architect :—

*J. M. Smallwood & Sons, Kingsgate, Bridlington.

Brighton.—New cottage to replace the old toll house at Patcham, for the T.C. :—

*J. Edgerton, Telscombe £563

Bury.—For (*a*) rebuilding the "Bridge Inn" public-house, Heap Bridge, near Heywood, and (*b*) alterations to the "New Inn" public-house, Blue Pitts Castleton, near Rochdale, for Messrs. Bury Brewery Co., Ltd., George-street. Mr. A. Pursglove, A.R.I.B.A., architect, 79, Mosley-street, Manchester :—

*(*a*) J. Tinline, Ltd., Bury.
*(*b*) Otto Elton, Ltd., Bury.

Chelmsford.—Repairs, etc., of cottages in Provident-square, for the T.C. :—

S. T. Claydon, Chelmsford	£719 3 0
C. Smith & Sons, Terling	716 15 0
J. C. Pryke & Son, Chelmsford ...	693 8 0
Real Construction Co., Chelmsford	566 16 5
*R. W. Chandler, Chelmsford	543 0 0

Chester-le-Street.—Alterations to Lambton Castle, the ancestral home of the Earl of Durham :—

*Henry Kelly (Contractor), Ltd., 26, St. Mary's-place, Newcastle.

Chesterfield.—Extensions to the Technical College, for the Derbyshire E.C. :—

*Evans Bros., Riddings £10,432

Colchester.—Two classrooms to the East Ward Council school, for the E.C. :—

*Billington & Mason £1,746

Consett.—Additional classrooms at the Grove Council school, for the Durham C.C. :—

*R. Southren, Dipton, near Annfield Plain £2,046 10

Coventry.—Alterations and additions to headquarters in Cox-street, for the Building Committee of the Coventry Working Men's Club (Sec., H. Cooper). Mr. George Cave, L.R.I.B.A., architect, Manchester Unity Buildings, 7, Little Park-street :—

*E. Harris and Son, Coventry.

Durham.—Installation of electric light at Whickham Council school and Haverton Hill Council school, for the County E.C. :—

*F. Reid, Ferens & Co., Newcastle-on-Tyne £405

Easington Colliery.—Rebuilding of the miners' welfare institute. Messrs. Hays & Gray, architects, 60, Camden-street, North Shields :—

†B. Stafford & Son, Rudland-terrace, Hendon, Sunderland.

Eastry.—Small chapel, keeper's house, etc., at the cemetery, for the R.D.C. :—

*— Collingwood, Barham £1,119

Eaton Bray.—Eight houses at Hockliffe, for the R.D.C. Mr. Harold A. Rolfe, F.S.I., L.R.I.B.A., chartered architect, 15, Bridge-street, Leighton Buzzard :—

E. Pryor, Luton, Beds	£3,230
Heels & Surars, Luton, Beds	3,024
H. Brantom, Leighton Buzzard	2,788
Fleet & Roberts, Aylesbury, Bucks ...	2,552
G. Alcock, Cheddington, Bucks	2,530
D. Nott, Caddington	2,520
*W. G. Willis & Son, Leighton Buzzard (Subject to sanction of M.H.).	2,520

Edinburgh.—For St. Leonards-road housing scheme, for the T.C. Mr. E. J. MacRae, City Architect, Municipal-buildings :—

Excavation, brick and mason—
*R. Bruce & Sons, Ltd., 45, York-place, Edinburgh £11,555
Joinery, carpentry and ironmongery—
*J. & J. Chalmers, Haddow-street Saw Mills, Hamilton 7,843
Painter—
*G. M. Robb, 6, Henderson-row, Edinburgh 595
Slater—
*H. B. Robertson, Lawrie-street Cement Works, Leven 1,871
Plumber—
*Shaw & Gibson, West Regent-street, Edinburgh 4,232
Glazier— ... ...
*William Marshall, 137, Robertson-street, Edinburgh 308
Plaster—
*J. & W. McLachlan, Annandale-street-lane, Edinburgh 2,506

Edinburgh.—Two houses and four shops at Craiglochart-road junction and Colington-road :—

*J. Miller, Miller-place, Edinburgh.

Edinburgh.—Housing scheme at Pleasance and Fourth Development, for the T.C. Mr. E. J. MacRae, City Architect :—

Excavation, brick and mason—
*J. Turner & Co., 11, Westfield-street, Edinburgh £2,522
Joinery, carpentery and ironmongery—
*James Duncan & Sons, 127, Grove-street, Edinburgh 1,023
Plaster—
*A. Gorrie, Dunollie, Perth-road, Cowdenbeath 383
Plumber—
*Duncan Blake & Co., 10, Beaverhall-road, Dundee 407
Slater—
G. Riddell, Raeburn-street, Edinburgh 348

Edinburgh.—Housing scheme at Shaughton Golf Course site, for the T.C. Mr. E. J. MacRae, City Architect :—

Excavation, brick and mason—
*W. Arnott, McLeod & Co., Ltd., Russell-road £23,021
Joinery, carpentery and ironmongery—
*W. Louden, Bellshill Saw Mills, Clelland 15,602
Plumber—
*Shaw and Gibson, West Regent-street 8,294
Painter—
*G. M. Robb, 6, Henderson-row 1,209
Slater—
*W. & S. Christie, 78, Constitution-street, Leith 3,735
Plaster—
*J. & W. McLachlan, Allendale-street-lane 4,866
Glazing—
*A. B. Williamson, 5, Coates-place 560
(All of Edinburgh.)

Edinburgh.—Reconstruction of cubicles at Colington Mains Hospital. Mr. E. J. MacRae, City Architect :—

*T. Graham, Ltd., 45, Castle-street, Edinburgh £448

Felling-on-Tyne.—Improvements to the premises of the Felling Shore Co-operative Society. C.W.S. Architects Department, 90, Westmoreland-road, Newcastle :—

*— Knott, Pelaw-on-Tyne.

Gateshead-on-Tyne.—Conversion of premises in St. James-road into shops, for the Newcastle Breweries, Ltd. Messrs. J. Oswald & Sons, architects, 2, Worsick-street, Newcastle :—

*Executors of Mr. J. Simpson, of Forth-street, Newcastle.

Gateshead-on-Tyne.—17 lock-up garages at Low Fell. Mr. F. Davies, architect, 33, Durham-road :—

*R. Stephenson & Sons, Back Kells-lane, Gateshead.

Glasgow.—Fire escape at Stobhill Hospital :—

*R. Smelt & Co., 250, Alexandria-parade, Dennistoun, Glasgow £164

Glasgow.—Housing scheme at Trossachs-street, for the T.C. Mr. W. McNab, architect, Housing Director's Office :—

Excavation, brick and mason—
*H. McDougall & Sons, 46, Grant-street, St. George's-road £6,281 0 10½
Joinery, carpentry and ironmongery—
*John Lawrence (Glasgow), Ltd., 50, Wellington-street 3,842 4 2
Slater—
*W. Laurie, 222, St. James-road, Parliamentary 727 19 3
Plumber—
*T. Porter & Sons (Glasgow), Ltd., 153, Seaward-street 2,639 13 6
Plaster—
*Hugh S. Bathgate, 540, Duke-street, Dennistoun 1,117 19 7
Painter—
*T. Hastie & Sons, Tullis-street, Bridgeton Cross 229 8 6
Glazier—
*D. Milligan, 113, Albion-street ... 172 19 5
Iron railings and gates—
*The Star Architectural Iron Works, 39, Farrell-street 227 3 4

Glasgow.—Reconstruction at the Glasgow Academy of Music. Messrs. John Burnet, Son & Dick, architects, 237, St. Vincent-street :—

Brick, mason and steel structure—*Shaw & Campbell, Duke-street, Dennistoun.
Joinery, carpentry and ironmongery—*Lawson & Co. (Govan), Ltd., Park Saw Mills, Govan.
Slater—*W. Crawford, 11, Minerva-street.
Plumber—*Robert Renfrew & Sons, Ltd., North-street, Charing Cross.
Cement—*Shaw & Campbell, Duke-street, Dennistoun.
Glazing—*Lawson & Co., Ltd., Albion-street, Govan.
Plaster—*George Rome & Co., Ltd., Townsend-street.
(All of Glasgow.)

Glasgow.—Reconstruction and extension to premises in Crown-street, for the Bank of Scotland. Messrs. Balfour & Patterson, architects, 110, Blythswood-street.

Demolition, brick and mason—*J. G. Dewar, 63, Pollock-road, Shawlands.
Joinery, carpentry and ironmongery — *W. Lightbody & Sons, Sydney-street, Calton, Glasgow.

Glasgow.—Shops and garages at Garscraig-road. Messrs. J. & J. Craig & Sons, architects, 219, St. Vincent-street, Glasgow :—

*J. Laidlaw & Son, Playfair-street, Bridgeton, Glasgow.

Glasgow.—Tile work at 160, Acherhill-road, Knightswood, for the T.C. :—

*Toffolo, Jackson & Co., 110, West Regent-street, Glasgow.

Glasgow.—Reconstruction of offices, at the Fruit Market, for the T.C. Mr. Thomas Somers, City Engineer and Surveyor :—

*J. Stevenson, 93, Pitt-street, Glasgow.

Glasgow.—Reconstruction and additions at Bruce-road. Mr. James Aitchieson, architect, 170, Hope-street :—

*Turnbull, Parnie & Adams, 289, Hope-street, Glasgow.

Glossop.—Chemical plant house at the waterworks, for the T.C. Mr. George Faulds, Borough Surveyor :—

*Middleton Bros., Glossop £235

Gravesend.—Detached shop on Denton estate, for the T.C. Mr. J. G. Bennett, L.R.I.B.A., Borough Architect, 5, Woodville-terrace, Gravesend :—

*A. E. Tong & Son, Manor-road, Gravesend.

Grimsby.—100 non-parlour type houses on Nunsthorpe housing site and construction of roads, for the C.B. Mr. H. Gilbert Whyatt, Borough Engineer and Surveyor :—

Houses—
*Steel & Goddard, Grimsby £14,100 11 3
*Steel & Goddard, Grimsby 14,513 0 0
Roads—
*Andrew Blair, Lyell & Co., Birmingham 3,519 13 8

Harthill.—34 houses, for the Lanarkshire C.C. Mr. Peter Smith, architect, Clydesdale-street, Hamilton :—

Excavation, brick, mason, joinery, carpentry, ironmongery—*Wm. Chalmers, Ltd., Dalziel Saw Mills, Motherwell.
Plumber—*R. W. Mean, 68, Brandon-street, Motherwell.

Hinckley.—New schools, etc., at Hinckley, for the Leicestershire County E.C. Mr. E. G. Fowler, F.R.I.B.A., architect, County Education Office, Grey Friars, Leicester :—

*Ottey & Clegg, Leicester.

Isle of Thanet.—Public conveniences at Minnis Bay, Birchington, for the R.D.C. Surveyor :—

Ross & Co.	£900
Edmonds, Ltd.	879
Grummant Bros.	875
G. H. Pettman, Ltd.	830
J. B. Sharman	792
—. Hogben	771
Darby & Martin	750
Operative Builders and Decorators	748
Elliott & Co.	747
†Rice & Son, Ltd., Margate	698

Isle of Wight.—Buildings and alteration of existing buildings, etc., in connection with equipment and adaptation of Chale Farm for the Small Holdings of the C.C. Mr. A. J. A. Harris, County Highway Surveyor. Quantities by the Surveyor :—

*J. G. Brooker, Sunnymead, York-avenue, East Cowes (I. of W.) £5,730 17 6

Kanturk.—Residence for the dispensary medical officer, for the North Cork County Board of Public Assistance :—

*D. McSweeney, Mill-street £1,575

Keighley.—20 houses and 2 shops in Devonshire-street and West-lane :—

*Waterhouse & Pickles, Keighley

Keighley.—Additions to weaving shed at Chesham Mills. Messrs. J. Hartley and Son, chartered architects, Skipton. Quantities by the architects.

Builders—*H. V. Robinson, Ltd., Keighley.
Joiner—*W. V. Patrick, Grassington.
Plumbers—*W. & J. Harrison, Keighley.
Painter—*James Rushton, Cowling.
Glaziers—*W. H. Heywood & Co., Huddersfield.
Steelwork—*H. Barrett & Sons, Bradford.
Slaters—*J. Atkinson & Son, Ltd., Leeds.

Kirkcaldy.—Reconstruction on the Tolbooth, for the T.C. Mr. A. Williamson, architect, Royal Bank-buildings, Kirkcaldy :—

Mason and brick—*D. Wilkie, 2, Anderston-street, Kirkcaldy.
Joinery, carpentry and ironmongery—*Boyle & Nicol, Ltd., 35, Dunnikeir-road.
Plumber—*J. Black, Esplanade.
Plaster—*J. F. Scobie & Co., Bogbily-road.
Glazing—*W. H. Carron & Co., High-street.
Slating—*William Currie, Dunnikeir-road.
Painting—*J. & N. Nicholson, 29, White Causeway.
Electric installation — *Martins, Ltd., High-street.
(All of Kirkcaldy.)

Kilcarberry.—Repairs to water mill, for the Enniscorthy Mental Hospital Committee:—
*— Davis £230

Lancashire.—For (*a*) widening Haydock Park bridge; (*b*) strengthening Inskip bridge; (*c*) repairing Voss Dam bridge; and (*d*) construction of a bridge at Lydiate, for the C.C. Mr. Peter Schofield, County Surveyor and Bridgemaster, County Offices:—
(*a*) *Morrison & Sons, Ltd., Liverpool.
(*b*) *H. Joyce & Sons, Ltd., St. Annes.
(*c*) *T. Coates (1927), Ltd., Bury.
(*d*) *T. H. Mitchell, Urmston.

Lancashire.—For (*a*) internal decoration of the Clitheroe Institution Hospital, and (*b*) internal decoration to the hospital block at Leigh Institution, for the P.A.C. Mr. Stephen Wilkinson, F.R.I.B.A., County Architect, 16, Ribblesdale-place, Preston:—
(*a*) *W. H. Watson & Co., Clitheroe £110
(*b*) *J. H. Evans & Sons, Manchester ... 487

Leighton Buzzard.—14 houses in East-street, for the U.D.C.:—
H. Robinson & Son, Watford (six houses), £2,022; eight, £2,969; fourteen, £4,718.
Tranfield & Co., Bletchley, six, £2,304; eight £3,070.
Ernest Pryor, Luton, fourteen, £4,714.
H. Brantom, Leighton Buzzard, six, £2,010; eight, £2,672; fourteen, £4,648.
Webster & Cannon, Aylesbury, fourteen, £4,438.
*W. G. Willis & Son, Leighton Buzzard, fourteen, £4,396.

Liverpool.—Alterations, repairs, etc., at hospitals and institutions, for the T.C.:—
Kirkdale Homes—(alterations and additions to provide day room accommodation for post encephalitis lethargica cases)—
‡Rimmer Bros., Liverpool £392 0 0
Walton Hospital—(hacking out and cementing walls of corridors and recreation room)—
‡A. R. Ball & Co., Liverpool £150 0 0
Walton Hospital—(extensions to laundry, dining and sorting accommodation)—
‡Rimmer Bros., Liverpool £638 10 0
Mill-road Infirmary—(improvements to reception department)—
‡Brown & Backhouse, Liverpool £597 0 0

Liverpool.—Boathouse and pay-box at the new ornamental boating lake at Calderstones park, for the T.C. Land Steward and Surveyor:—
‡Thomas F. Hill, 35-37, Church-road, Woolton, Liverpool £870

Liverpool.—Construction of a light structure to cover the space between the canopies on each side of the tower at the Stanley abattoir, meat and cattle market, for the T.C. Land Steward and Surveyor:—
‡William Hall & Son, Ltd., 60, Christian-street, Liverpool £204 17 6

Liverpool.—Construction of a culvert and incidental works, and the diversion of a watercourse co-extensive with the Speke-road housing site, for the T.C. Director of Housing:—
‡Lawrence Marr & Son, Moss Bank, Aspen-grove, Liverpool £1,335 10

Liverpool.—House and club premises in Hartley-avenue, Long-lane, Aintree, for Messrs. W. P. Hartley Ltd. Mr. F. W. Nicholson, F.R.I.B.A., architect, 2, Dewey-avenue, Aintree:—
Builders—*Joshua Henshaw & Sons.
Plumbing—*Robert W. Haughton.
Decorations—*Henshaw Bros.
Plymas partitions—*Venesta, Ltd., London.
Terrazzo and tiling—*Bingham & Fleming.
Electrical installation—*McGoff and Vickers, Ltd.
Heating—*Wm. Norris & Bro., Ltd.
Sanitary fittings—*Rowe Bros. & Co., Ltd.
(Remainder of Liverpool.)

Liverpool.—Interior cleaning and painting at the Walton Hospital, for the T.C. Land Steward and Surveyor:—
‡W. Clarkson, Liverpool £1,785

Liverpool.—Interior cleaning and painting at Smithdown-road hospital, for the T.C. Land Steward and Surveyor:—
‡W. Clarkson, Liverpool £1,025 10

Liverpool.—Alterations and additions to premises in Upper Mason-street, for Messrs. P. W. Willey and Son:—
*T. James and Co., Liverpool.

Liverpool.—New roadway at the Stanley abattoir, meat and cattle market, for the T.C. Land Steward and Surveyor:—
‡W. Hall & Son, Ltd., 60, Christian-street, Liverpool £998 10

Liverpool.—Private residences in Liverpool-road and Sefton-lane, Maghull:—
*—. Kelly, 27, Willow Hey, Maghull, Liverpool.

Liverpool.—Reconstruction of ground floor at 104 and 106, London-road for a branch bank, for Messrs. Barclays Bank, Ltd. Mr. Rowland . Stubbs, L.R.I.B.A., architect, 14, Cook-street:—
*C. & G. L. Desoer, Ltd., Liverpool.

Liverpool.—Reconstruction of factory at Moss-street, Garston, for Messrs. Mappleton Nut Food Co., Ltd.:—
*J. D'Arcy and Son, Ltd., Liverpool.

Liverpool.—Painting work required at the museums, for the T.C. Land Steward and Surveyor:—
‡W. Mooney & Sons, Ltd., 11, Manesty-lane, Liverpool £145

Liverpool.—Reconditioning part of the roof lights at the Walker Art Gallery, for the T.C. Land Steward and Surveyor:—
‡Hill Brothers Glass Co., Ltd., 67-69, Summer-lane, Birmingham £446 12

Liverpool.—Repairs, etc., at Chapel House, Speke, for the T.C. Land Steward and Surveyor:—
‡S. Hill & Co., Ltd., Grassendale, Liverpool £568

Loftus.—Rebuilding of the P.M. Sunday School and Chapel. Messrs. Kitching & Co., architects, 21, Albert-road, Middlesbrough:—
*J. Thompson, Loftus £800

¶London.—Tenders accepted by H.M.O.W. for the week ended May 27:—
Geological Museum, S.W.—steel lantern lights—Humphries, Jackson, Ambler, Ltd., Brook House, Cornbrook, Manchester.
Geological Museum, S.W.—steel casements—Crittall Manufacturing Co., Ltd., 210, High Holborn, W.C.1.
Preston Head Post Office—improvement—R. Baron, Ltd., Peel Hall-street, Preston.
Edinburgh, Royal Scottish Museum—railings—Bromsgrove Guild, Ltd., Bromsgrove.
Cranwell, R.A.F. College—terrazzo paving—Leigh & Terry, Whitehouse-street, Birmingham.
Hartlepool Employment Exchange—erection—W. Pearson & Son, Burn-road, W. Hartlepool.
Stainland (Halifax) Telephone Exchange—erection—O. Atkinson & Sons, Tower Works, Harrogate.
Chester Head Post Office—alterations—W. Fleming & Co., Cross-street, Neston.
Fowey Post Office—alterations—Fowey Direct Builders Co., Ltd., 9, Passage-street, Fowey.
Heswell Telephone Exchange—erection—W. Fleming & Co., Cross-street, Neston.

London.—Providing and erecting the fencing and contingent works at the Council's new burial ground at Mill Hill, Hendon, for the Paddington B.C.:—
‡En-Tout-Cas Co. (Syston), Ltd., Syston, near Leicester £4,240

London.—Structural steelwork, at Stanhope-street electricity station, for the St. Pancras B.C.:—

Fairweather & Ranger	£321
Dorman, Long & Co., Ltd.	320
E. C. & J. Keay (1926), Ltd.	318
Redpath, Brown & Co., Ltd.	312
Joseph Westwood & Co., Ltd.	294
Matthew T. Shaw & Co., Ltd.	292
T. C. Jones & Co., Ltd.	290
T. W. Palmer & Co.	289
*Archibald D. Dawnay & Sons, Ltd.	271

Macclesfield.—Extensions to the mills of the Bollington Printing Co., Ltd.:—
*H. Cumberbirch, Bollington.

Maltby.—32 houses, for the R.D.C.:—
*J. & A. Grayshon, Moorside, Drighlington £9,353 3 8

Manchester.—Alterations to Brook House, Victoria-park College of Domestic Economy, for the E.C.:—
Builders—†Tinker & Young, Ltd.
Brickwork—†Benjamin Smith.
Plumbing and glazing—†Turton & Son.
Plastering and painting—†W. J. Roberts.
(All of Manchester.)

Manchester.—For (*a*) electrical installations at Mill-street, meals centre, (*b*) patent glazing, (*c*) heating installations at Old Moat senior school, (*d*) electrical installation at Ancoats Nursery school, for the E.C.:—
(*a*)†R. Seddon & Sons.
(*b*)†Helliwell & Co., Ltd., Brighouse.
(*c*)†G. N. Haden & Sons, Ltd.
(*d*)†John Collier & Co. (Electrical Engineer), Ltd.
(Remainder of Manchester.)

Manchester.—Weighbridge office at Russell-road depot, Blackley, for the T.C. Mr. J. B. L. Meek, City Engineer:—
Mason—†W. Radcliffe & Son, Ltd.
Slater—†J. A. Northan & Co., Ltd.
Plumber and glazier—†J. A. McCrea & Son.
Plasterer and painter—†G. F. Holding, Ltd.
(All of Manchester.)

Manchester.—Wireless and meteorological buildings at Manchester Airport, Barton, for the T.C. Mr. Henry Price, A.R.I.B.A., City Architect:—
†G. and J. Seddon, Ltd., Little Hulton, near Bolton.

Maybole.—Ranch for fox breeding and reconstruction of house. Messrs. John Laird & Sons, architects, 11, Bothwell-street, Glasgow.
Excavation, brick and mason—*A. C. Cunningham & Sons, Alloway-works, Ayr.
Plumber—*Robert Renfrew & Sons, Ltd., North-street, Glasgow.

Middlesbrough.—Extensions to premises in Marsh-road, for the Lionweld Steel Flooring and Stairway Co.:—
*Hugills Forge, Thornaby-on-Tees.

Middlesbrough.—14 better-class type houses on Acklam-road, Whinney Banks housing estate, for T.C.:—
‡J. & F. Buckle, Stockton £4,075 15 5

Newcastle-on-Tyne.—Flats on the Heaton Hall housing estate:—
*W. E. Hall & Son, Ltd., 29, Durham-road, Low Fell.

Newry.—Conveniences, for the U.D.C. Mr. C. Blaney, architect and surveyor, Town Hall:—

Henry Savage, Newry	£1,319
Mirtagh Lavery, Newry	1,300
*P. McKenna & Sons, City Mills, Armagh	1,075

North Shields.—New front and other alterations to the Tynemouth Savings Bank in Saville-place. Messrs. F. R. N. Haswell & Sons, architects, 77, Tyne-street, North Shields:—
*H. D. Burton, King-street, North Shields.

Nottingham.—Fencing the Nottingham Whitemoor school site, for the E.C.:—
*J. W. Stamp & Co. £979

Parracombe.—Hall at Parracombe, for the Heddon Valley Lodge Parish Hall Building Committee. Mr. T. A. Barson, Parracombe, Barnstable, Devon. Mr. Gibbs, architect and surveyor, Lynton Town Hall, Lynton, N. Devon:—
*W. Parkhouse, Parracombe £740

Pewsey.—One pair of non-parlour type houses in parish of Easton Royal and one pair of non-parlour type in parish of Collingbourne, Kingston, for the R.D.C. Mr. J. Black, Building Surveyor:—

Collingbourne Kingston—			
D. Hatcher, Ludgershall	£748	0	0
A. Weaver, Newbury	708	0	0
C. New, Collingbourne	693	5	8
Cooke Bros., Newbury	650	0	0
*P. C. King, Pewsey	653	0	0
Easton Royal—			
A. Weaver, Newbury	790	0	0
C. New, Collingbourne	700	5	3
W. F. White, Pewsey	696	6	0
Cooke Bros., Newbury	660	0	0
Gilbert Bros., Wilcot	649	0	0
*P. C. King, Pewsey	646	0	0

Preston.—School for girls and extensions to the Convent of St. Augustine's at Larkhill, for the Society of the Faithful Companions to Jesus. Very Rev. Canon John Catterall, P.P. Mr. W. R. Watson, architect, 22, Downside-road, Glasgow, W.2:—
*J. Turner, Bamber's-yard, Preston.

Preston.—16 non-parlour type houses at Poplar-street, for the C.B. Mr. W. Platt, Borough Engineer and Surveyor, Birley-street:—
*Pius A. Baines & Son, Paley-road Sawmill, Preston.

Preston.—26 houses in Robin-street, for the T.C. Mr. W. Platt, Borough Surveyor:—
*A. Threlfall, Preston £7,839

Renfrewshire.—Erection of the new Netherlie School. Mr. Hamilton Neil, architect, 163, St. Vincent-street, Glasgow:—
Excavation, brick and mason—*R. Anderson & Sons (Glasgow), Ltd., Argyll-street, Glasgow.
Plumber—*Jas. Wilson & Sons, Espidaire-street, Paisley.

Ripley.—External painting, etc., of the following schemes, for Guildford R.D.C. Mr. W. Wilton, surveyor, Millmead House, Guildford:—
Newark-lane, Ripley—
*A. Spiers, Guildford £20 0
Burnt Common, Send—
*A. Spiers, Guildford £13 10
Grandis Cottages, Ripley—
*A. Spiers, Guildford £15 0
Pathfield, Shere—
*E. M. Scott, The Grove, Woking ... £40 10
Fulkes Cottages, W. Horsley—
*E. M. Scott, The Grove, Woking £40 10
Mays Corner, Send—
*C. T. Corps, Guildford £19 10

Rotherham.—16 non-parlour type houses and 14 bungalows for aged persons at Bramley, Wickersley and Whiston, for the R.D.C. Mr. A. E. Lant, surveyor:—
‡H. Godley, Wickersley, Rotherham ... £8,859

Runcorn.—Internal and external painting of the isolation hospital, Dutton, for the R.D.C. Mr. J. O. Hunter, surveyor, 69, High-street:—
*J. Barrow & Son, Main-street, Frodsham £300

Salford.—Extension to Blackfriars sub-station, for the Electricity Committee. Mr. L. Romero, Electrical Engineer:—
†William Gornall and Sons, Ltd., Salford £886

Salford.—Reconstruction of premises in Broad-street, Pendleton, for the Pendleton Co-operative Industrial Society, Ltd., Mill-street, Pendleton:—
*R. T. Warburton & Son, Salford.

Sheffield.—New factory in Sheffield-lane, for Messrs. Lenton & Rusby, Ltd. Mr. Harold J. Shepherd, architect, Town Hall-chambers, 87, Fargate:—
*G. Longden & Son, Ltd., Sheffield.

Smethwick.—Alterations and additions to Primitive Methodist schools in Regent-street, for the Primitive Methodist Trustees. Mr. George Randle, architect and surveyor, Lloyds Bank-chambers, 116, High-street:—
*C. Green & Sons, Birmingham.

Staines.—Additional ladies' lavatories in the Memorial-gardens, for the U.D.C.:—
*A. Jordan, Staines.

Staines.—Pavilion in the Bedfont recreation ground, for the U.D.C.:—
*W. B. Wicks, Bedfont-lane, Feltham £164 15

Stainforth.—Building of mortuary, for the P.C. Mr. H. Plewes, surveyor, Thorne:—
*Thorley Bros., Thorne £254 10

Stirlingshire.—New residence at Drymen area, for the Marquis of Montrose. Messrs. Stewart & Paterson, architects, Blytheswood-square, Glasgow :—

Excavation, brick and mason—*T. Simpson & Sons, Heatherlee, Balfron.

Joinery, carpentry and ironmongery—*R. Simpson, Wright-works, Killearn.

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W. B. Kingsbury, Boxford	£2,100
F. G. Sutton, Sudbury	2,056
Wakelin & Rampling, Cornard	1,997
Chas. Deaves, Bures	1,980
G. T. Elsdon, Hedingham	1,884
*A. & E. Brown, Acton, Sudbury	1,878

Thetford.—Six houses at East Harling and two at Bridgham, for the R.D.C. Mr. G. Whitworth, surveyor, Queen's-road, Attleborough, Norfolk :—

Hogg & Son, Coney Weston	£2,822
C. Cordy, Hingham	2,400
S. Tennant & Sons, Watton	2,320
J. H. Hales, Gt. Barton	2,300
†W. Pecke-Vout & Son, Watton	2,256

Tralee.—County Hospital, for the Kerry County Board of Public Health :—

Collins & Collins, Tralee	£32,990 18 11
Michael Gough, Ltd., Limerick	26,320 5 0
McCaffrie & O'Carroll, Limerick	25,831 6 4
J. J. Buttermore & Co., Tralee	24,239 19 9
McNally & Co., Dublin	24,114 0 9
John Kenny & Co., Dublin	21,771 6 4
*Fitzgerald & O'Sullivan, Tralee	21,740 12 0

Tuam.—20 lavatories, for the Town Commissioners :—

D. Dwyer	£185
D. McCoy	176
*James Stockwell	105

Tynemouth.—301 houses on the land west of Silkey's-lane, for the T.C. Borough Surveyor :—

*W. Hall & Son (Low Fell), Ltd.... £90,217 13

Urmston.—Alterations and additions to headquarters in Crofts Bank-road, for Building Committee of Conservative Club Association. Mr. C. Davies, architect, Derby Cottage, Derby-road :—

*Bennett Bros., Urmston.

Urmston.—Club premises in Atkinson-road off Gloucester-road, for the Building Committee of the British Legion Association :—

*H. J. Hallgate & Co., Salford.

Wakefield.—Internal painting, decorating and cleaning of a portion of the old hospital and of the new Ann Canning wing at Clayton Hospital. Messrs. Massie & Holdsworth, architects, York buildings, Wood-street. Quantities by the architects :—

*A. Higginbotham & Sons, Idle, Bradford.

Wakefield.—New model dairy in Dewsbury-road, for the Borough Industrial Co-operative Society, Ltd., 66, Horbury-road. Mr. C. F. Moxon, architect, Regent-street South, Barnsley :—

*G. Crook & Son, Wakefield.

Watford.—16 houses on site in Deadmans Ash-lane, Sarratt, for the R.D.C. Mr. E. A. Cragg, engineer and surveyor, Council Offices, 25, King-street, Watford :—

*W. A. Jones & Sons, Pinner-road, Oxhey, Watford £4,975
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*Kershaw's (Electrical Engineers), Ltd., Manchester.

West Ham.—Cleansing and painting works, at Central Home, Union-road, and Whipps Cross Hospital, Leytonstone, for the C.B. Mr. T. V. Griffiths, Borough Surveyor :—

Central Home, Union-road, Leytonstone—
*Corporation Works Dept. £1,767
Whipps Cross Hospital, Leytonstone—
*Corporation Works Dept. £2,197

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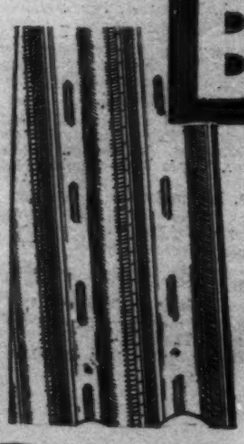

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